DOCUMENT RESUME

ED 375 850 IR 055 249

AUTHOR	Woodsworth, Anne; And Others
TITLE	The Future of Education for Librarianship: Looking Forward from the Past.
INSTITUTION	Council on Library Resources, Inc., Washington, D.C.
PUB DATE	Apr 94
NOTE	101p.
AVAILABLE FROM	Council on Library Resources, 1400 16th Street, N.W., Suite 510, Washington, DC 20036-2217 ($15 prepaid).
PUB TYPE	Information Analyses (070) -- Reference Materials - Bibliographies (131)
EDRS PRICE	MF01/PC05 Plus Postage.
DESCRIPTORS	Annotated Bibliographies; Core Curriculum; Futures (of Society); Higher Education; *Information Management; *Information Science Education; Information Sources; Librarians; *Library Education; Library Schools; *Professional Continuing Education; Student Recruitment

ABSTRACT

The subject of this analytical bibliography is the future of education for librarianship. Its purpose was to cover English-language publications since 1980 and selected "classic" authors of the past, and to synthesize the trends and concepts that emerge. The first section presents a brief synthesis of each of the major issues/trends that emerged from the literature followed by an alphabetical list of the citations from which the analysis was drawn. The major issues identified are accreditation, certification, and standards; curriculum; continuing education; extended educational preparation; information science, information resource management, and related fields; interdisciplinary linkages; international perspectives; non-classroom experiences; recruitment and admission; specialization; technology; and theory versus practice. The second section contains an annotated bibliography of 167 items published after 1980 together with older landmarks in the field. Section three lists citations of works that were identified as potentially relevant but were not reviewed. (JLB)

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The Future of Education for Librarianship: Looking Forward from the Past

by

Anne Woodsworth, Principal Investigator
Rae Packard
Michael J. Robinson
Jill Sabia

Council on Library Resources
April 1994

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April 1994

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Washington, D.C. 20036

Library of Congress Cataloging-in-Publication Data

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The Future of education for librarianship : looking forward from the
  past / by Anne Woodsworth ... {et al.}.
      p.    cm.
    Includes bibliographical references.
    1. Library education--United States--Bibliography.  2. Library
  education--Bibliography.  II. Woodsworth, Anne.
  Z668.F9 1994
  016.020'71'173--dc20                                        94-15216
                                                                  CIP
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PREFACE

In the spring of 1993 the Council on Library Resources contracted with the Palmer School of Library and Information Science to prepare an analytical bibliography on the future of education for librarianship. It was intended to cover English-language publications since 1980 and selected "classic" authors of the past and to synthesize the trends and concepts that emerge. This is the final report to the Council on Library Resources on the project.

The first section, "The Major Issues," presents a brief synthesis of each of the major issues/trends that emerged in the literature as concerns or directions for the future of education for librarianship. Each synthesis is followed by an alphabetical list of the citations from which the analysis was drawn. The major issues themselves are listed alphabetically, although curriculum clearly emerged as the front-runner in terms of the number of times--and sometimes the vituperation--with which it was mentioned. The other sections cover accreditation and standards, continuing education, extended educational preparation, information science, information resource management and related fields, interdisciplinary linkages, international perspectives, isolation of programs, non-classroom experiences, recruitment and admission, specialization options, technology, and theory versus practice (educators versus practitioners). Since many of the publications address multiple issues, a particular work may be cited under more than one heading.

The second section contains an annotated bibliography of works since 1980 and the older landmarks in the literature.

The third section is an alphabetical list of citations that were identified as potentially relevant but were not reviewed, either because they were considered marginal on the basis of their titles or because the interlibrary loan system failed to get us a copy in time for review.

Work on the project was carried out by Rae Packard, Michael J. Robinson, and Jill Sabia, students in the Master of Science in Library Science program of The Palmer School of Library and Information Science at Long Island University, under the direction of the principal investigator, Anne Woodsworth, Dean of the School.

Rae Packard
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INTRODUCTION

This review of recent literature and selected "classics" in the field of education for library and information studies requires some overarching comments. First, unlike models of the future library, there is a paucity of visions of the future of education for the field. Most of the writings in this bibliography are opinions about the changes that ought to be made to one or more aspects of education for library and information studies. Even the Carnegie reports in the first half of this century were largely collections of data, analysis, and then recommendations for change. There are a few futuristic projections in field that are holistic, although some have tried to chew off a segment of the field such as academic or special libraries. Two that stand out are the efforts of Ernest J. Reece and Martha Boaz. Reece tried to project educational needs fifty years into the future (in the 1920s) and twenty-five years into the future (in the 1940s). Boaz used Delphi techniques to develop scenarios for education twenty-five years into the future. If we have erred in missing more models, I would happily correct this report. Given this dearth, and given that visions of the virtual library are becoming more clear, perhaps it is now time to try to articulate models of the future of education for the field.

In other words, most of the literature summarized here reflects a melange of opinions and perceived priorities, sometimes divergent and conflicting. Certainly some points recur, and some carry through the entire century.

Significant change is, in fact, reflected throughout this bibliography. Educational preparation has evolved from training in technique and methods to undergraduate degrees, fifth-year bachelor's and master's degrees, and, finally, acceptance of the master's degree as the basic requirement for practice of the profession. The field of information science evolved later; it sometimes grew into separate programs and degrees and sometimes was blended into existing library science programs. Doctoral study is now firmly established in the field, although the numbers of programs and graduates are small. Continuing education has become accepted as part of the mission of many schools, something that was often articulated as a need before the 1980s. While the early literature mentions the need for some national vehicle for certification of librarians, recent literature does so less frequently, probably because certification has become a state government responsibility, particularly for public libraries and elementary and secondary schools.

Many of the changes that have been seen as being needed in the future by authors at the beginning of the twentieth century are still being iterated today. There are frequent and persistent calls for curricular change. This is not necessarily cause for alarm since the field has itself changed dramatically in the past century, and concomitant change should be occurring in the educational side of the house. The often strident nature of the requests for curricular change might be attributed in part to some schools lagging behind the times, but probably is equally due to the unrealistic desires of practitioners to have new graduates meet *their* particular needs at a given point in time. Practical experience as part of the educational experience is demanded regularly through the decades. So are the following: recruitment of "the brightest and the best," fear about the isolation of schools of library and information studies on campus and the need for linkages with other disciplines, accreditation and standards, improving the quality of the faculty, faculty liaison with the field, general versus specialized preparation of students, and the balance of theoretical versus practical content of programs.

From time to time, it has also been suggested that there be national coordination of schools and their programs, both in the U.S. and elsewhere (Ning 1990). After World War II, Danton (1946) and Berelson (1949) recommended this. More recently, so did Shores (1972), Boaz (1983), Conant (1980), and Stieg (1992). Whether or not antitrust laws would prohibit this coordination is moot since higher education, particularly programs in independent institutions, is not coordinated in any respect at the national level. Berelson and Conant also stated that the number of schools should be reduced in order to improve quality in the remaining ones. Shores had a more radical suggestion: to allocate students to schools depending on the availability of jobs. Up until the rapid growth of higher education in the 1960s there were fewer than forty accredited programs. Although their numbers grew until the time that Conant suggested a reduction, the number of schools has since declined due to closures. Whether or not the quality of the remainder has been affected is, happily, outside of the scope of this report.

Not overtly apparent in the report is the significant influence that the Carnegie Corporation had on education through its periodic investigations and reports in the first half of the century. Similarly, the Council on Library Resources has influenced education to some extent through its programs and grants. Less obvious is a probable relationship between the volume of debate and publishing and revision of the standards for accreditation. For example, much of the debate that occurred in the field in the eighties was stimulated by the impending revision of the 1972 *Standards for Accreditation*. A bibliometric study of the literature of prior decades could provide data to affirm the relationship.

A few footnotes are needed about terminology. The annotations in this report use a variety of terms to refer to education for library and information studies (today's politically correct phrase) because the authors' own terminology has been used. It is interesting to note that the evolution of the field and how it perceives itself is clearly reflected in the changing terminology. In the early years, library training (which is what it was) was the predominant phrase. This was supplanted by either training or education for librarianship as the field moved toward establishing a theoretical framework for itself and programs began to be housed in universities. Library education has been frequently used even as late as the eighties and still appears to be used today as shorthand for education for librarianship or for library and information studies. After World War II, the term education for library science became the preferred terminology; in the seventies and eighties, it was library and information science. With the passage of the 1992 *Standards for Accreditation*, education for library and information studies became the accepted phrase, but not without protracted debate.

Throughout the report, MLS is used as shorthand for all master's degrees in the field of library and information studies, with the full knowledge that there are many variations of names in actual use.

As a graduate with a postbaccalaureate Bachelor of Library Science (1964) who returned to school get a sixth-year master's degree in 1969, I exemplify part of the maturation that the field went through in the sixties and early seventies. The transition from undergraduate to graduate-level courses was evident not just in the acceptable degree for entry into the profession; it was also exemplified in the classroom. Instruction had moved from being didactic and mired in boring details toward courses that made me think and introduced me to the idea of a career in the field, rather than just a nine-to-five job. Most of the faculty I encountered in the early sixties were practitioners with master's degrees; those who guided me through my master's year had terminal degrees and challenged my analytical and problem-solving skills.

As someone wiser than me once said, it's easy to recount and analyze history when you've lived through so much of it.

Anne Woodsworth

THE MAJOR ISSUES

ACCREDITATION, CERTIFICATION, AND STANDARDS

Although the focus of this literature review was the future of education, accreditation, certification, and standards for education sometimes have been pointed to as a path for improving education in the future. Williamson (1923), Reece (1924), Danton (1946), Shores (1972), LIBRARI (1993), and Campbell (1993) almost span the century with a call for certification of librarians, sometimes in lieu of the accreditation of programs. Over the decades, the role and efficacy of accreditation and standards as change agents also has been debated and questioned (Budd 1992; Danton 1946; Wheeler 1946; Eshelman 1983; Sellberg 1988) and defended (Cortez 1988).

Restructuring the accreditation process is sometimes suggested as the best means for reforming education (Eshelman 1983; Martin 1986), as is the involvement of other agencies or associations (Koenig 1983; Miller 1989; Veaner 1985). McClure and Hert (1991) recommend that the American Library Association's Committee on Accreditation be disbanded and that the profession adhere to standards other than those of ALA. They also recommend that regular and ongoing certification of faculty be required. The following citations give but a small taste of the body of literature that exists because of the revision of the 1972 ALA *Standards for Accreditation* that occurred in the 1980s and concluded in 1992.

Budd, R. W. 1992. A New Library School of Thought. Library Journal 117: 44-47.

Campbell, J. D. 1993. Choosing to Have a Future. American Libraries 24: 560-64.

Cooper, M., and L. F. Lunin. 1989. Education and Training of the Information Professional. In Annual Review of Information Science and Technology, vol. 24, 295-341. Amsterdam: Elsevier Science Publishers.

Cortez, E. M. 1988. The Information Professional: Facing Future Challenges, 25-35. Paper presented at a State of the Art Institute, Special Library Association, Washington, D.C.

Danton, J. P. 1946. Education for Librarianship: Criticisms, Dilemmas, and Proposals. New York: Columbia University, School of Library Service.

Eshelman, W. R. 1983. The Erosion of Library Education. Library Journal 108: 1309-12.

Hayes, R. M. 1986. Accreditation. Library Trends 34, 537-59. (Issue title: Current and Future Trends in Library and Information Science Education.)

Koenig, M. E. D. 1983. Education for Special Librarianship. Special Libraries 74, 182-96.

LIBRARI: New Rungs for Library Career Ladders. 1993. NYLA Bulletin, 8-11.

McClure, C. R., and C. A. Hert. 1991. Specialization in Library/Information Science Education: Issues, Scenarios, and the Need for Action. Paper presented at the Conference on Specialization in Library/Information Science Education, Ann Arbor, Mich. (ERIC Document Reproduction Service no. ED 352 032)

Martin, S. K. 1986. Library Education: An Administrator's View. Library Journal 111, 115-17.

Miller, M. L. 1989. ALA/NCATE: An Education for School Librarianship. Catholic Library World 60: 76-80.

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White, H. S. 1986. The Future of Library and Information Science Education. Journal of Education for Library and Information Science 26, 174-82.

White, H. S., and S. L. Mort. 1990. The Accredited Library Education Program as Preparation for Professional Library Work. Library Quarterly 60: 187-215.

Williamson, C. C. 1971. The Williamson Reports of 1921 and 1923, including Training for Library Work (1921) and Training for Library Service (1923). Metuchen, N.J.: Scarecrow Press, 1971.

CURRICULUM

Although the issues are in alphabetical order, the target of most of the cries for change is the curriculum. This is hardly surprising, since the curriculum is the heart and soul of the preparation of students for the profession. There is much discussion in the literature about what is wrong with the curriculum, but there is little consensus about the ideal curriculum, present or future. Most views of the content of curricula are biased by the experience or the setting from which the authors speak. As studies have pointed out, there is little unanimity about the kinds of courses that ought to be offered, although most authors agree that there should be a set of core courses that cover the basics in the field. It is no wonder, then, that it is difficult for the field to foresee what should be covered in the curricula of the future.

One of the most insightful and lasting predictions was made by Reece in 1924. He observed that fifty years into the future, librarians would need to have a knowledge of statistics, teaching methods, and personnel administration, as well as highly specialized subject knowledge. He even alluded to the need to identify the content of a core curriculum so that all graduates would understand the nucleus of the field. In 1949, in the context of revising Columbia's curriculum, he reported on a field investigation of practitioners. His selected respondents looked twenty-five years into the future and predicted that schools would have to prepare students for: a strong teaching role (even diagnostic and prescriptive) for librarians, with less emphasis on getting and keeping a collection; aggressive service that anticipates needs and assists and contributes to research; public education and outreach through programming and furnishing raw data to an informed public; greater exploitation and use of nonprint materials; management of libraries; and constituent analysis. This sounds remarkably like the roles that have been articulated in the past by Battin (1983), Buckland (1986), Hayes (1981, 1988), Malinconico (1992), Woodsworth and Lester (1991), and by groups such as the Strategic Visions Steering Committee. Yet there were and still are individuals who concurrently assert the need for more methodologically grounded knowledge (e.g., Shores throughout his career) such as reference interviews, online searching (Powell and Creth 1986), and bibliographic control (Hyman 1991). Since the converse is also offered--i.e., the broader information context as described by Taylor (1979) and McClure and Hert (1992)--there are clear signs that unanimity is not near.

Other dichotomies about future-oriented curricula are discussed in other sections of this synthesis--information science, information resource management, and related fields being integrated into or separated from traditional library science; interdisciplinary linkages; specialization options; the impact of technology on the curriculum; and the balance of theory versus practice that ought to exist.

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Bearman, T. C. 1984. The Changing Role of the Information Professional. Library Trends 32: 255-60.

Bearman, T. C., ed. 1987. Educating the Future Information Professional. Library Hi Tech 5: 27-40.

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CONTINUING EDUCATION

In 1923 Williamson urged schools to accept responsibility for continuing education, as did Berelson in 1949. Today, continuing education and/or post-degree certificate programs appear to have been accepted by many, but not all, schools (Durrance 1986; White 1983) as part of their missions. A number of authors see continuing education activities as becoming more important in the future (Bearman 1984; Boaz 1983; Dougherty 1986; Ghani and Griffin 1987; Gleaves 1982; Gosling 1991; Heyser and Heyser 1989). Despite this groundswell of apparent need for continuing education, Paris and White's (1986) study found that not all sectors of the field are equally interested in or supportive of the need for continuing education.

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EXTENDED EDUCATIONAL PREPARATION

Expanding the educational experience below and beyond the basic working credentials for the profession has been discussed almost since the inception of librarianship in North America. There have been proponents of preprofessional, professional, and then graduate or postgraduate education early in the century as well as lately. Reece (1924, 1949) advocated a three-level plan, whereas Williamson, in 1923, recommended the pattern of a four- year college degree followed by a year of professional study that is still the norm. Munthe (1939), Danton (1946), Wheeler (1946), Berelson (1949), and Shores (1972) all echoed Reece's position of providing multitiered education--e.g., preprofessional at the junior college level through to graduate education, paraprofessional training, and certification beyond the graduate level. As the master's degree became the norm in the early seventies, the field once more began to call for education for paraprofessionals (Boaz 1983, 1984; Pearson and Webb 1988); undergraduate level courses in library and information science (Budd 1984; Conant 1980; Gardner 1987); certificate programs beyond the master's degree (Boaz 1983, 1984); and even the need to teach about information technologies in secondary schools (Cronin 1983). Longer master's degree programs, of fifteen months to two years, were foreseen by Williamson in the early 1920s and are again being called for, largely because of the growing complexity of the field (Hayes and Summers 1983; Martin 1986; Rayward 1985; Pearson and Webb 1988).

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INFORMATION SCIENCE, INFORMATION RESOURCE MANAGEMENT, AND RELATED FIELDS

The relationship between library science (LS) and related fields such as information science (IS) and information resource management (IRM) is not firmly resolved in the literature. Most of the discussion centers around whether or not to integrate IS and IRM into a single curriculum, or whether to create separate degrees and even departments. In 1973, Boaz's Delphi study participants were neutral on the question, but two contributors to her work, F. W. Lancaster and C. W. Stone, were in favor of integration. During the eighties and nineties, this position was echoed by Auld (1990), Beasley (1981), Gorman (1990), Lancaster (1983), Li (1985), and Rush (1985). Cooper and Lunin (1989) and Estabrook (1986) maintain that there is a natural convergence of library science and related fields; Croghan (1987), McClure and Hert (1991), and Forgione (1991) state that a broader approach should be taken to encompass library science, IS, and related fields. Taylor (1979) blatantly states that the field must separate itself from the institution of the library. Williams and Zachert report that the integration of IS and LS has created some problems and confusion.

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INTERDISCIPLINARY LINKAGES

From the beginning of their connections with universities, schools have repeatedly been told that it is important to develop interdisciplinary connections with other, related programs in the institution to ensure the future survival and health of education for the field. Warnings from earlier generations who predicted the need for better integration with other parts of the institution (Danton 1946; Munn 1936; Shera 1972) have gone largely unheeded, it seems. The dangers inherent in academic insularity or isolation are being voiced more stridently in the past decade with the closure of so many schools (Paris 1988; Stieg 1992). The small size of most schools is also a contributing factor to low campus visibility, and this in turn argues for the kind of integration into larger units with related programs that is outlined in the section on IS, IRM, and related fields (Bookstein 1986; McClure and Hert 1991; Gardner 1987). Apart from the information fields, the connections most often mentioned are schools of business, management, social science, education, engineering, communications, and computer science (Bearman 1987; Berry 1987; Gardner 1987; Garrison 1988; Koenig 1986; Marcum 1988; Rayward 1985; Swigger 1985). Also recommended are closer relations with practitioners (Budd 1992; Wheeler 1946) and with industry (Cooper and Lunin, 1989).

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Bohannan, A. 1991. Library Education: Struggling to Meet the Needs of the Profession. Journal of Academic Librarianship 17: 216-19.

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INTERNATIONAL PERSPECTIVES

Although views of future education in other countries do not seem to contribute directly to this report, they do lend another perspective and point to other possible futures. For example, the centralized and government-controlled systems of France and West Germany, with their firmly established and controlled dual career tracks, have to address issues such as the need for specialization and tailor-made programs and the need to bring education for information technology into secondary schools (Cronin 1983; Kaegbein and Rusch 1982). In some respects other countries are playing catch-up with North America--focusing on developing more master's and doctoral-level programs; reaching vast underserved areas (Bowden 1985; Lesokhina 1985); and developing a long-term plan for a complete system of education (Lin 1983; Ning and Lan 1990)--while looking to solve some of the same problems (Broadbent 1988; Gibbons 1983; Godert 1987; Havard-Williams 1987). These include attracting quality students, addressing new markets, inserting depth into programs in areas such as preservation (Clements 1986), redefining the field (Daniel 1993), and developing a closer liaison with the profession (Beattie and Henri 1991).

Beattie, K., and J. Henri. 1991. Education for Teacher-Librarianship in Australia. Education for Information 9: 317-27.

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NON-CLASSROOM EXPERIENCES

Non-classroom experiences, such as internships, residencies, and field work, are called for as part of the educational process by contemporary authors as well as those in prior decades. Williamson, for example, urged in 1921 and 1923 that field work be considered as one of the methods of instruction. As the field has broadened and required increasingly complex and varied specializations, leaders in the field such as Boaz (1973, 1986), Hayes, and others listed below have advocated required internships in programs or the creation of paid postgraduate residency opportunities in larger libraries. In the area of midcareer and other human resources development programs, the vision and influence of the Council on Library Resources has been significant (Dougherty 1986). Since the 1993 ALISE Statistics indicate that only a small number of schools require field work experience of students, it is understandable that non-classroom instruction continues to be touted as a continuing and unfulfilled need.

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RECRUITMENT AND ADMISSION

There were requests for change in recruitment and selection of students in both the Williamson and Reece reports of 1923 and 1924, respectively. They have not abated since. Over the decades these have been recurring and continuous. The field wants recruitment of brighter students, higher entrance requirements, and better screening processes that admit only the brightest and the best (Munn 1936; Shera 1972; Conant 1980; Asheim 1983). Shores (1972) anticipates some truly radical changes in screening as parapsychology develops as a field. Recruitment of students with specific backgrounds is also frequently mentioned--viz., science, engineering, and technology backgrounds (Frank 1990; Griffiths 1986; Heyser and Heyser 1989), and quantitative aptitude (Beasley 1981). Minority recruitment is another need that must be addressed, according to Auld (1990) and others writing in the 1980s and 1990s. Some have suggested that containment of the field through control of the number admitted might lead to a better quality of student.

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SPECIALIZATION

Throughout the history of education in the field there have been debates about whether to prepare generalists or specialists. Both Williamson (1923) and Reece (1936) foresaw the need for two years of graduate study for the profession. In the 1940s Berelson, Danton, and Wheeler agreed that there was a need for specialists in the field and called for educators to provide postgraduation certificates or lengthened "upper-level" programs. Asheim's (1968) classification of jobs also supported the notion of specialists. More recent literature reveals that the need for specialization is far from abating. Practitioners regularly call for more emphasis on areas they feel are neglected, such as academic/research librarianship (Asheim 1983; Battin 1983), preservation (Cloonan 1991), media (Croghan 1987; Turner 1991), special librarianship (Bivins 1981; Clough and Galvin 1984; Tees 1986), and bibliographic control (Sellberg 1988), to name a few. The means suggested to achieve specialization include special tracks within the curriculum, inclusion of different courses, postdegree certificates, special internships, longer programs, on-the-job training, and continuing education.

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TECHNOLOGY

The infusion of computing and telecommunications into the work of libraries and the information profession has altered curricula in schools of library and information studies since the 1960s. Courses like library automation, library networks, and database searching were added in the first wave of changes. Some of the articles listed below still make suggestions along those lines (Boaz 1984; Culnan 1986; Eyre 1980; Gomersall 1981; Schlessinger and Schlessinger 1983). In 1971, Osborn called for new ways of thinking and suggested stretching traditional courses to include computing. Lately, however, the rapidity of change in the information technologies has resulted in calls to reconceptualize the entire field as well as education for it. As mentioned earlier, this trend is stirring anew the debate about integrating traditional library science with information science, information resource management, and related fields.

Among those who see a choice between making cataclysmic change or facing certain professional death are Campbell (1993), Budd (1992), Cronin (1988), Daniel (1986), McClure and Hert (1991), Rush (1985), and Taylor (1979). Lancaster's (1983) assertion that librarianship, and hence education for it, must shed its place-bound philosophy is also reflected in many of the writings cited below. Competition in the market, along with adapting to new markets, is another technologically driven change that is predicted. As Garrison (1988) points out, other related professional associations are promoting courses and programs that intersect and overlap with those offered through schools of library and information science. Gorman (1990), on the other hand, argues that if schools disclaim their relationship to librarianship in their rush to adapt, the profession is in jeopardy.

Alley, B., ed. 1987. Education for Librarianship: A Conversation with Leigh Estabrook. Technicalities 7: 3-6.

Boaz, M. 1984. Some Controversial Opinions About Library/ Information Science Education. Journal of Education for Librarianship 24: 215-17.

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Cronin, B. 1988. Nichemanship for the Nineties. In Post-Professional Transforming the Information Heartland, edited by B. Cronin and E. Davenport, 328-33. London: Taylor Graham.

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Malinconico, S. M. 1992. What Librarians Need to Know to Survive in an Age of Technology. Journal of Education for Library and Information Science 33: 226-40.

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THEORY VERSUS PRACTICE

The balance of practical and theoretical content in programs is often mentioned in the literature as needing to be changed in the future. While closely related to the curriculum and to course content, the issue is broader in the sense that it can be both the product and the cause of a schism between educators and practitioners. Auld (1990) characterizes the split as professional expectations (with emphasis on the practice of the profession) versus academic expectations (with emphasis on research). The problem has been pointed out since Dewey's day, but it appears to be something that still needs to be addressed, although its direction has shifted somewhat with time. The early reports said there was too much emphasis on technique and method and called for more emphasis on theory and principles (Munn 1936; Danton 1946; Wheeler 1946). This analysis continued through the seventies (Shera 1972; Asheim 1977). By the early 1980s, Conant was asking for "a balance between theory and practice," while Budd (1984) felt that too much stress had been placed on practical training. Frequent calls for the inclusion of non-classroom or field experience (see this section also) attest to practitioners' desire to include some practical emphasis in education.

Some writers suggest that a resolution of the theory-practice conundrum can be achieved though dialogue and harmonization. Shores (1972) thought that a work-study or cooperative approach to education would solve the problem. Cronin (1982) calls for schools to define their role either as service agencies providing vocational training or as an educational institution. Daniel (1983) suggests shifting focus to output rather than inputs (faculty and curricula) in order to resolve differences of opinion. Other options to bridge the gap include seminar-laboratory courses (Derr 1983) and stronger partnerships between educators and practitioners (Griffiths 1986; Heim 1986; Heyser and Heyser 1989; Martin 1986; Wedgewood 1991). Internships and case method instruction are also suggested (Ryans 1980). While much of the literature aptly diagnoses causes and symptoms in this area, it is weak in reporting successful remedies.

Asheim, L. 1977. Education of Future Academic Librarians. In Academic Libraries by the Year 2000: Essays Honoring Jerrold Orne, 128-38. New York: Bowker.

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Griffiths, J. M. 1983. Competency Requirements for Library and Information Science Professionals. Rockville, Md.: King Research, Inc. (ERIC Document Reproduction Service no. ED 241 037)

Heim, K. M. 1986. Dimensions of Faculty Public Service: A Policy Science Approach to Questions of Information Provision. Journal of Education for Library and Information Science 26: 154-64.

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Wheeler, J. L. 1946. Progress and Problems in Education for Librarianship. New York: Carnegie Corporation.

ANNOTATED BIBLIOGRAPHY

Alley, B., ed. 1987. Education for Librarianship: A Conversation with Leigh Estabrook. *Technicalities* 7: 3-6.

> Estabrook, Dean of the Graduate School of Library and Information Science at the University of Illinois, presents her views of library education in an interview. She says that in the future librarianship needs to emphasize public access, despite the pressures of today's society to put a price on information provision. She mentions the influence of technology on programs and states that technology should be used as a tool for students to learn information handling in all forms. In her opinion, library and information science graduates should be concerned with the organization, acquisition, and dissemination of information in all types of settings.

Asheim, L. 1968. Education and Manpower for Librarianship: First Steps Toward a Statement of Policy. *ALA Bulletin* 62: 1096-1106.

> Asheim defines the functions of library service, which were traditionally the responsibility of the librarian. By dissecting these tasks into a variety of professional and nonprofessional classifications, he intends to upgrade the role of the librarian. The five categories of workers and the concomitant levels of education he describes are: professional specialist (education beyond the MLS); librarian (with an MLS); library assistant (with a BA or more); technical assistant (with two to four years of college); and library clerk (with business or high school education).

__________. 1977. Education of Future Academic Librarians. In *Academic Libraries by the Year 2000: Essays Honoring Jerrold Orne*, 128-38. New York: Bowker.

> In this chapter, Asheim states that academic librarians should anticipate the changing needs of the future and that schools that educate academic librarians should reflect those needs in their curricula. A fundamental change he suggests is to put greater emphasis on principle and theory, rather than practical skills. Asheim does not suggest the exclusion of practical skills, but rather a mix of three components: an underlying discipline, an applied science, and a skills and attitudinal aspect.

__________. November 1983. *Library School Preparation for Academic and Research Librarianship*. A report prepared for the Council on Library Resources. Washington, D.C.: CLR.

> Although not a prediction for the future, this report explores the relevance of current library education to current library practice. A variety of materials were gathered from fifteen selected schools and analyzed against a set of criteria. Among Asheim's findings: there was no agreement on program emphasis and no standard core, although there was accord on organization of materials, information retrieval methods,

and available information sources; new technologies are evident, and most programs include advanced applications; and traditional curriculum content is a large part of all programs, even though the balance with innovative programs varies greatly. Asheim views this diversity among schools as positive, since students can choose an appropriate emphasis. He also found that conflict between schools' preparation and employers' expectations is the source of continued disagreement, that screening for admissions should be more restrictive, and that there is an absence in some programs of an overall view of the profession.

Auld, L. W. S. 1990. Seven Imperatives for Library Education. *Library Journal* 115: 55-59.

Auld discusses several issues critical to education for librarianship. These include: professional versus academic expectations; the relationship between library science and information science; and the option of undergraduate programs. Resolution of these issues will directly affect other aspects of library education, such as minority recruitment; international librarianship; the size and organization of library schools; and general versus single- purpose programs. Auld believes a balance has to be established between the expectations of practitioners and educators. Research and practical skills are both essential. He also feels that library schools should embrace information science as an important part of library education. In addition, he believes that undergraduate programs in library science are beneficial as long as they include courses that explain how different levels of library employees interact. This step will help alleviate any resentment that may develop between employees at different levels.

Battin, P. 1983. Developing University and Research Library Professionals: A Director's Perspective. *American Libraries* 14: 22-25.

The capacity of a university to provide scholarly information to support its instructional and research programs depends on a qualified (and, consequently, well-paid) professional staff. Unfortunately, professional expectations for librarianship have been low. Battin asserts that in the next decade, qualifications for librarianship should include: problem-solving abilities; rigorous academic training; management abilities; and intellectual commitment to research. Finally, the key will be those individuals who have been taught how to learn in a constantly changing environment.

Bearman, T. C. 1984. The Changing Role of the Information Professional. *Library Trends* 32: 255-60.

The author examines the impact that the changing role of the library professional will have on the future of library education. Areas for change include: revised curricula and entrance requirements; increased financial resources for hands-on experience with new technologies; increased continuing education and funds for professional development; and increased participation in international programs.

Bearman, T. C., ed. 1987. Educating the Future Information Professional. Library Hi Tech 5: 27-40.

> This symposium deals with the opinions of a number of professionals about the positive and negative aspects of contemporary library education. D. Bender states that library schools will continue to be the prime educators of future information professionals. However, their faculties need to be more familiar with the requirements of the information specialist, and library schools must draw from the corporate sector to supplement academic faculty or provide faculty with regular leaves to acquire updated knowledge of professional requirements. H. Brinberg calls for the information professional of the future to develop a thorough understanding of the field of information; a deeper understanding of the contributions of information to society; specific skills in a subspecialty; and the ability to be a team participant. K. Heim concurs, stating that library school should educate students about the new technologies, provide an understanding of interdisciplinary connections, and foster a commitment to information provision. L. Resnik comments that more interdisciplinary efforts with schools of business and social science are necessary to provide the context for informational professionals. B. Unruh feels that to enable information professionals to keep up with the information market, there should be guidelines for and periodic reviews of information science programs, along with a required curriculum. D. Lewis notes that today's education does not emphasize emerging information markets. Schools should introduce courses, seminars and conferences, special events, and distance education, and should convene informal groups to keep up with the markets. If there is no development, the functions of library schools will be assumed by management centers and business schools. R. Rowe sees the emergence of chief information officers (CIOs) and states that library schools are uniquely qualified to prepare these professionals.

Bearman, T. C. 1993. The Education of Archivists: Future Challenges for Schools of Library and Information Science. Journal of Education for Library and Information Science 34: 66-73.

> Bearman bases her recommendations about the education of archivists on six current societal trends that she believes will affect needed competencies. As a point of departure, she presents a list of skills, including: (1) knowledge of the process of information (appraisal, acquisition, arrangement, and description); (2) management; (3) communication, including the promotion of the value of information; (4) understanding of technologies; (5) ability to do and interpret research; (6) critical thinking; (7) ability to exploit information resources; and (8) assertive leadership. She states that to maintain standards, professional partnerships must be formed to reevaluate curricula continually and to encourage internships and residencies outside the classroom.

Beasley, K. E. 1981. Library Education in the Americas: The U.S. In Library and Information Science Education in the Americas: Present and Future, edited by W. V.

Jackson, 27-35. Papers from a conference held in Austin, Texas, 14 February 1980. State College, Pa.: Association for Library and Information Science Education.

> Beasley feels that the main issues in library education include: specialist versus generalist education; proper type of entry into the field; and evaluation of accepted library training and performance. Critical areas to be resolved include the MLS degree; faculty training and scholarship; the role of the paraprofessional; the gap between communications and library theory; and the slowness in the development of information science curricula. To provide information science with the emphasis it needs and to prepare library science for the next twenty years, several actions should be taken by library educators: (1) integrate information science into course work; (2) train faculty and practitioners to implement the integration of information science into the curriculum; (3) provide higher salaries for faculty with expertise in information science; (4) recruit and assist students who have quantitative aptitude and skills; (5) devise ways to develop quantitative skills in students who exhibit aptitude, but are deficient in the skills; and (6) acknowledge that the emphasis on information science means greater emphasis on special libraries. Beasley concludes that library science has been active in curriculum development, including interdisciplinary course work, specialization, and joint programs. Doctoral programs, however, have not provided enough leadership in the field, cohesiveness or a sense of direction, or a concrete definition of their role.

Beattie, K., and J. Henri. 1991. Education for Teacher-Librarianship in Australia. Education for Information 9: 317-27.

> In Australia, the teacher-librarian is a qualified teacher with specialization in librarianship. Over the last twenty-five years, the field has grown from a few weeks of limited courses to degree-length and graduate diploma courses. For the future, a number of issues must be tackled. These include the need for more master's and doctorate-level programs; a more aggressive attitude toward the management of information; and closer liaison with professional and employing bodies to raise the status of the profession.

Berelson, B., ed. 1949. Education for Librarianship. Chicago: American Library Association.

> This compendium of papers is from a 1948 conference at the University of Chicago's Graduate Library School. The program and the papers are organized around problem areas in the field--the relationship of the professional school to the university, the relationship of library education to other professional education, preparatory education for librarians, education for various specializations within the field, advanced study and research, and administrative problems of library education. Although not always unanimous, participants agree that stratification of education into preprofessional, professional, and graduate is appropriate. There is strong demand for specialization

beyond general professional education, and the need for a core curriculum is noted. Prior educational requirements are discussed, but the authors do not present a picture of unanimity, nor do they agree on the relative value of a graduate degree in librarianship versus a graduate degree in another field after library school. The quality of some programs and their faculty ought also to be improved, as should the integration of the library school into the fabric of the university. There is disagreement about whether professional education ought to be partly at the undergraduate level or completely at the graduate level (fifth year). The theme of cross-fertilization of education and the field runs throughout the work, as does the need for schools to take some responsibility for continuing education of professionals after graduation. In one of the papers it is proposed to reduce the number of schools (thirty-six) dramatically in order to improve the quality of the remaining schools.

Berry, J. 1987. Protecting Our Turf. Library Journal 112: 43-46.

In this summary of the 1987 ALISE conference, Berry draws together opinions on the nature of the discipline, among other issues. He states that a clear warning was given that the survival of library and information science programs depends on building interdisciplinary interaction with the rest of academe. The interaction must be through an interdisciplinary curriculum, a merged set of schools, or more active participation of the dean and faculty in the affairs of the university.

Biggs, M. A. 1991. A Perspective on Library Science Doctoral Programs. Journal of Education for Library and Information Science 32: 188-93.

Biggs defines librarianship as a "professional study," not an "academic discipline." Within this context she evaluates accepted models for doctoral study and finds that most programs have varying coherence and levels: written comprehensive exams; dissertations; and oral defenses supported by several research methods courses (which are often taught by graduate faculty with low research productivity). According to Biggs, librarianship does not have a body of governing theory to be taught or incorporated into postmaster's programs. Biggs furnishes three possibilities: (1) since library science is merely a professional study, providing theoretical perspectives for inquiry, the best way to generate expert research is to work closely with scholars from other disciplines; (2) doctoral programs should be radically redesigned by individualizing research programs and conforming research methods to the requirement of doctoral programs in appropriate disciplines; and (3) the Ph.D. in library science should be eliminated and replaced with a Ph.D. in another discipline, with library science as a specialization within.

Bivins, K. T. 1981. Education for Special Librarianship in the U.S. IATUL Proceedings 13: 53-59.

> This article discusses the current status of the library profession and the need for adequate educational preparation for special librarians. According to the author, there is a dilemma in educating future librarians and not abandoning traditional methods of responding to user needs. The teaching of techniques and theory--to collect, acquire, and store--is not sufficient. The development of analytical problem-solving people who can deal creatively with problems of retrieving information for specific utilization is stressed. Bivins further emphasizes the need for students to develop an appreciation for the complex problems involved in information handling.

Boaz, M., ed. 1973. Toward the Improvement of Library Education. Littleton, Colo.: Libraries Unlimited.

> In her leading chapter, Boaz points out that there is a strong consensus that library education programs should be more innovative; that more instructional options should be open to both instructors and students; that curricula should be designed to prepare students to anticipate developments, solve problems, and adapt to change; and that future graduates should have more knowledge of automation. Among desirable changes are more training for community involvement, more field work as part of the curriculum, and more student responsibility for their learning experience. Unlike others in earlier and later decades, Boaz's Delphi study participants were neutral on the question of whether library education should merge with a cluster of related disciplines. There are four chapters on library education for the future for four different types of libraries. They suggest the types of courses that should be offered to meet personnel needs in their particular sector. Wilf Lancaster addresses the question of the place of information science in the library school and makes a case for integration, at least to the point where all students are exposed to some minimum level of information science. C. Walter Stone, looking to the turn of the century, predicts that library schools will survive, but as part of colleges of communication science with very broad interdisciplinary ties. He considers future changes so significant that he calls for a national review of curricula in library science.

Boaz, M. 1983. The Leadership Role in Library Education: A Crisis in Confidence. In Reference Services and Library Education: Essays in Honor of Frances Neel Cheney, 237-47. Lexington, Mass.: Lexington Books.

> Boaz urges library educators to take leadership in developing library education that responds to the needs of a changing social milieu. She stresses the need for different approaches to library education, such as the simu-school, nontraditional classroom settings and time frames, promoting certification programs beyond the MLS, and paraprofessional training and interscholastic cooperative projects (an institutional library school and a national research center). In order to accommodate the latter,

Boaz suggests that a committee be established to set objectives for education based on a model of society in the year 2000.

__________. 1984. Some Controversial Opinions About Library/ Information Science Education. Journal of Education for Librarianship 24: 215-17.

Boaz discusses areas in library education that should have more emphasis. Curricula should be more focused on technology, electronics, computer theory, and computer design. On the practical side, internships are important. Postgraduate education, along with periodic recertification, are important in the future of library education. Educational objectives ought to include a paraprofessional component as well. Plans and projections should be based on a prototype library of the future that library schools should develop.

Bohannan, A. 1991. Library Education: Struggling to Meet the Needs of the Profession. Journal of Academic Librarianship 17: 216-19.

The author traces the history of complaints about library schools and offers a possible solution to solve the problems with library education. She suggests concentrating curricula on the skills required for the first five years of professional work in various types of libraries. Basic instruction in the foundations of librarianship and computer use in libraries should begin in the MLS program. The use of and the theory behind applications is also important. In addition, Bohannan says that the isolation of library schools from the rest of the university community must be addressed, as must educational standards.

Bookstein, A. 1986. Library Education Yesterday and Today: Library Education in a University Setting. Library Quarterly 56: 360-69.

Bookstein presents two models of library schools that can be adopted to improve their value and visibility within institutional settings. Both models call for an increase in the size of the school, since this step would make the school more visible, provide for faculty with strong backgrounds and interests in specific disciplines, and permit faculty to form research teams. The first model suggests that library schools merge with other, complementary units (which is the case at Rutgers and Syracuse). The other model would involve merging two or three existing library schools into a single unit. In addition to the two models, Bookstein suggests six areas that schools should pursue to make them stronger: exploitation of the university setting as a laboratory for research on library issues; service courses for other departments; joint programs with other graduate units; serious consideration of whether being an independent unit balances the disadvantages; exploration of avenues (i.e., compartmentalization of professional and academic components) that could increase library education's legitimacy in the eyes of colleagues; and emphasis on attracting grants, outside funding, and endowments.

Bowden, R. 1985. Education for Librarianship at the Grassroots Level: A Report of the IFLA Pre-Conference Seminar, Nairobi, 13-18 August 1984. IFLA Journal 11: 129-33.

> This article summarizes an IFLA preconference seminar on library and information service requirements for remote and rural end users and their implications for educational programs for librarians in the future. Requirements mentioned include the assessment of primary needs, such as those of illiterate cultures that rely on oral tradition, and the nation's conflicting need to exploit sophisticated information technology. Also required is the identification of personnel to deliver the services. Other improvements in educational programs were suggested, such as new or differently oriented courses for professional staff with changes in duration, content, and qualifications for entry and location. Courses for senior library assistants and adequately educated faculty were also mentioned as future needs.

Broadbent, M. 1988. Education for Information and Library Services. Australian Academic and Research Libraries 19: 145-60.

> Broadbent reviews current trends in education for information and library studies in Australia and examines challenges for the 1990s. Among the challenges for the future are attracting the best possible graduates, preparing students for new career markets, and developing professional pride. Educators will also have to anticipate a decreased funding base and determine how to meet even greater educational expectations while continuing to research, publish, and relate to industry and practitioners. Educators should help students understand where their programs will bring them. Finally, links between educators and employers should remain strong in order to provide educational input.

Buckland, M. 1986. Education for Librarianship in the Next Century. Library Trends 34: 777-88.

> Working on the premise that the substance of librarianship will determine the form of its curriculum, this author presents his projections for the future of library education. The concept and limitations of change are explored as a function of cultural forces, rather than of time. He argues that three aspects of librarianship--library values, library technology, and information- gathering behavior and retrieval theory--are central to the future curriculum of library education. These generalized and stable criteria may undergo little change, while information technology--the medium for information retrieval and gathering--may undergo dramatic change. Having catalogs, bibliographies, and texts online will, for example, liberate library service, while raising the political issue of who will control access to information.

Budd, J. 1984. Education of Academic Librarians. College & Research Libraries 45: 15-24.

Budd states that the development of academic librarianship education has been hindered because too much stress is placed on practical training. The concept of library education as apprenticeship, first espoused by Dewey, has hampered the upgrading of graduate library school education. Budd argues that the 36-credit master's degree does not provide sufficient depth for a librarian in a scholarly community, because much of the curriculum is basic and broad in scope. As in other subject disciplines, basic librarianship courses should be part of the undergraduate curriculum. The most fundamental premise of academic librarianship is a basis in intellectual content that necessitates specialization--both functional specialization and subject specialization--to add breadth of knowledge.

Budd, R. W. 1991. Education for Information Professionals: Building Bridges to the Future. New Jersey Libraries 24: 7-14.

Budd maintains that schools of library and information science will have to face the challenges that the information age has created with its abundance of information. Library schools ought to be much more open to experimentation and more concerned with new information systems, without neglecting traditional library science programs. Future-oriented programs should teach students to identify problems and discover answers even as the questions are asked. Schools need to teach problem-solving methods, not content. Furthermore, a research ethic--which presents a systematic method of identifying problems, collecting data, and developing findings to provide workable solutions--must be taught. Without providing specifics, Budd claims that the Rutgers School of Communication, Information and Library Studies is a model program.

__________. 1992. A New Library School of Thought. Library Journal 117: 44-47.

Schools of library studies are in a poor state of mental health. Their limited curricula are filled with required "how to" courses to meet accreditation standards. Current programs do not prepare students for the future, and the design of the programs may dissuade the best and the brightest from considering these programs. The library and information professions are intertwined with schools of library and information science, and the importance of this interdependence must be recognized. Just as medical and law schools lead the way by exploring new ideas and methods, library schools should be opened to experimentation and should be concerned with the new information systems. Library education should seek out practitioners and assist them to identify problems and changes in their patrons' information habits and behavior, with emphasis on questions they cannot answer, materials they do not have, and processes they cannot accommodate. In addition, schools and professional institutions should establish a research ethic that permits the profession to address important issues. Teaching should give the students the ability to solve problems, rather than pat answers.

Buttlar, L., and R. R. DuMont. 1989. Assessing LIS Competencies: Soliciting Practitioner Input for Curriculum Design. Journal of Education for Library and Information Science 30: 3-19.

> A survey of Kent State University's School of Library Science alumni identified competencies recommended for new graduates. The results of the survey indicated that skills related to effective reference service ranked highly in all types of libraries, but not for librarians in nonlibrary settings. Librarians in nonlibrary settings stress communication and human relations skills most highly. The findings suggest that the longer a library professional works, the more interpersonal skills take priority over skill-related tasks. Not surprisingly, the type of library setting has an impact on the perception of required competencies, as do years of experience in the field. The authors do not draw implications for changes in curriculum development from their findings.

Campbell, J. D. 1993. Choosing to Have a Future. American Libraries 24: 560-64.

> Citing the proliferation of electronic information, Campbell raises some controversial questions about whether a new breed of informational professional is needed. He argues that change is needed and that professional education needs to take a new direction. He urges libraries to employ new graduates who have taken a nontraditional array of courses. Campbell also states that faculty in schools of library and information studies must become involved in the development of information and delivery systems, that continuing education must be a priority, that certification for professional librarians should be considered, and that ALA must become an organization that facilitates, not frustrates.

Cave, R. 1980. Role of Historical Bibliographical Work in Library Education. Paper presented at Annual Conference, International Federation of Library Associations, Manila, August 18-23. (ERIC Document Reproduction Service no. ED 208 806)

> Cave insists that historical bibliography is an important aspect of library education and should not be neglected in the age of information technology. Although electronic journals and online services are priority concerns for future librarians, courses in historical bibliography provide advantages in relating the past to the present and for linking the different elements of professional study. Cave gives specific suggestions for a curriculum.

Clements, D. W. G. 1986. Preservation and Library School Education Programs. Library Association Record 88: 136-38.

Concern over the lack of appropriate training in preservation and conservation of library materials in the United Kingdom led to a Library Association survey. Findings indicate that preservation was not given enough priority and was not integrated into programs. The article recommends that programs emulate Columbia University's Preservation Administration Program, including courses in: history of books, preservation of library and archival material, records management, administration of preservation programs, conservation treatment, photo reproduction, and care of recorded materials. In addition, Clements recommends increasing the resources allocated to preservation in institutions.

Cloonan, M. V. 1991. Preservation Education in American Library Schools: Recounting the Ways. Journal of Education for Library and Information Science 31: 187-203.

This article advocates the inclusion of preservation education in library school curricula. This can entail incorporating preservation into existing courses, as well as more in-depth education on the subject. Many librarians feel that preservation is a necessary part of professional activities, and the curricula in library schools should reflect this view.

Clough, M. E., and T. J. Galvin. 1984. Educating Special Librarians. Special Libraries 75: 1-8.

With special libraries generating the largest increase in professional positions, the authors recommend that a dialogue be initiated between educators and special librarians to plan curricula cooperatively. The results of discussions between library educators and directors or administrators of both public and research libraries point not only to the inadequacies of current graduates, but also to the quality of the teaching faculty. According to the experts, a lack of technical knowledge is not the problem. A shortage of imagination and enthusiasm and, to a lesser extent, analytical and problem-solving quantitative skills is a problem. Among the recommendations offered are restructuring the curriculum, establishing libraries as teaching libraries, and having practicing librarians as adjunct professors. These steps will link the classroom more closely to the reality of the profession.

Conant, R. W. 1980. The Conant Report: A Study of the Education of Librarians. Cambridge: MIT Press.

This substantial study was first recommended to ALA and its Office of Library Education in 1968 and was actually begun in 1972. Thus, although the formal report has a 1980 imprint, its roots and findings are now almost two decades old. Conant, an outside objective researcher (as L. Asheim calls him in the introduction), worked with a research team to define the functions of professional education and to collect views of library education from faculty, students, alumni, and employers. Three principal questions are addressed in the report: (1) What is the function and responsibility of professionals at large? (2) How does the present system of library education measure up? and (3) What reforms are needed to improve library education and bring it closer to accepted standards of professional education? The last question provides a view of the future from the perspective of the mid- to late seventies. The chief reforms needed in the future are: to reduce the number of graduate programs so that supply meets demand; to lengthen programs to accommodate specialization and an internship; to balance theory and principles in instruction with practice to ensure understanding and competency; to develop a national plan for specialization among schools; to build a foundation for graduate programs by offering introductory undergraduate courses; to screen out applicants who will not be able to assume professional positions; to improve the quality and relevance of faculty; to narrow the gap between educators and practitioners; to place continuing education in the mission of schools; to use the accreditation process for reform; and to systematize reform through development of a national plan for the education and training of librarians.

Cooper, M., and L. F. Lunin. 1989. Education and Training of the Information Professional. In Annual Review of Information Science and Technology, vol. 24, 295-341. Amsterdam: Elsevier Science Publishers.

The authors review the development of professional education for information science over the past decade. Specific academic programs, graduate and undergraduate levels of education, evolution and trends in curriculum, assessment of quality through certification and accreditation, and international aspects are among the topics covered. Implications for the future of professional education are numerous: convergence with other contiguous areas of interest; identification of basic competencies that are common to a variety of information-handling professions (archivist, records manager, etc.); the need for library schools to learn from other professional schools how to attain a higher status; and the establishment of an ongoing dialogue between academia and industry.

Cortez, E. M. 1986. Developments in Special Library Education: Implications for the Present and the Future. Special Libraries 77: 198-206.

This article reviews the development of education for special librarianship, pointing out that special librarians have fought for a change in the theoretical framework for library school curricula. They have continuously stressed the importance of knowledge of information management and subject specialty over library techniques. Cortez suggests that library school programs adopt this focus in order to provide competitive professionals for today's information environment.

Cottam, K. M. 1986. The MLS: For the Public Good or for Our Good? *Library Journal* 111: 111-14.

Cottam questions whether or not the MLS degree is a necessary requirement for some of the job responsibilities that professional librarians are undertaking. He believes that certain functions in the library can be carried out by individuals with other qualifications. For certain positions, the deciding factor should not be whether they have an MLS, but rather whether they are capable of upholding professional roles and standards. Librarians need to find their way back to professional responsibilities: knowing how, why, and what information to acquire for their collection; knowing how to organize the information; and knowing how to work as information access experts for library users.

Croghan, A. 1987. Teaching Media Librarianship for the Future. *Audiovisual Librarian* 13, no. 1: 16-24.

This article examines how media librarianship is currently being taught in library schools and suggests how it should be taught in the future. The author suggests broadening the interpretation of library science and information science to provide the best means of access to all forms of information (including all nonprint media) in today's changing society.

Cronin, B. 1982. *The Education of Library-Information Professionals*: A Conflict of Objectives? ASLIB Occasional Publication, no. 28. London: ASLIB.

This report focuses on the divergent objectives of library schools and employers. Cronin traces the historical development of the debate between educator and practitioner and concludes that the resolution is in library schools' definition of their role as either a service agency to provide vocational training for librarians or as an educational institution. Along with suggesting a dialogue to close the gap, Cronin recommends greater professional self-examination; reorganization into a broader, more flexible curriculum; and alignment between employer demands and educational output.

__________. 1983. *The Transition Years: New Initiatives in the Education of Professional Information Workers*. ASLIB Occasional Publication, no. 29. London: ASLIB.

Through talks with library and information science educators, Cronin explores significant trends in curriculum development and planning, considering the future role of library schools from an international perspective. Focusing on countries with a highly developed library science infrastructure, he contrasts the "deregulated" education system of the U.S. to some of the more centralized and government-controlled educational systems in France and West Germany, where a two-career track is firmly established and controlled. He explores numerous international initiatives such as combining programs with other departments and successful information management programs, and a shift in curriculum to information-oriented programs. According to Cronin, the management of information is becoming increasingly complex for this diverse profession. Projections for the future include: teaching information technology in secondary schools; employers mandating tailor-made programs; and meeting local needs and demands.

__________. 1988. Nichemanship for the Nineties. In Post-Professional Transforming the Information Heartland, edited by B. Cronin and E. Davenport, 328-33. London: Taylor Graham.

In the past, library school education has claimed the market on teaching information management. However, the situation is different today. In this article, Cronin reviews the ability of library and information science schools to integrate with other professional fields in order to hone students' skills in information technology. The possible future of the traditional library school is discussed, as well as the implementation of a new, related professional program.

Culnan, M. J. 1986. What Corporate Librarians Will Need to Know in the Future. Special Libraries 77: 213-16.

The functions of special libraries and, in particular, corporate libraries have been, and will continue to be, affected by dramatic changes in technology and external events. The author does not recommend massive curriculum reform, but rather adapting and sharpening existing programs by developing a broader view of traditional skills, understanding new technologies, developing quantitative skills, and understanding the organization's needs for information.

Daniel, E. H. 1983. Education Matters. In Professional Competencies--Technology and the Librarian, edited by L. C. Smith, 97-109. Urbana-Champaign: University of Illinois.

Daniel describes three models for change in library/information education programs: incremental, skill oriented (the practical orientation), and the conceptual/futurist. She discusses in depth the conceptual/futurist model, wherein the institution redefines the future of librarianship. In order to accommodate the difference in perspectives of the practitioner and the educator, a beneficial strategy is to shift attention from input (curriculum and faculty) to output (competency). While Daniel sees many advantages to this approach, the primary disadvantage is that it is not theory-driven and does not present a holistic overview.

__________. 1986. Educating the Academic Librarian for a New Role as Information Resources Manager. Journal of Academic Librarianship 11: 360-64.

Daniel acknowledges that the environment in which the library functions is changing rapidly due to the advance of technologies and information. A reorganization of the library field is necessary to keep up with the changes, integrating concepts from information resource management. A model for the future librarian should be that of an information counselor and independent information broker, combining knowledge of subject areas with that of contemporary information technologies. A restructuring of education is suggested, which would place emphasis on information/computer literacy, solving information problems, and bibliographic instruction. Curriculum should take a top-down approach, emphasizing theory, problem solving, and study of the environment in which the profession is practiced.

__________. 1993. Report on Library/Information Science Education. In The Bowker Annual, 56-63. New York: R.R. Bowker.

Daniel reports on the struggle to make education for library and information studies more cosmopolitan. As society changes, education is confronted with a transition and therefore the field must rise to the challenge of redefining itself. This process has begun in Europe and Australia, as illustrated by the emergence of programs in information studies and business studies (courses include information resource management, marketing, organizational behavior, systems analysis and design, and project management). New multimedia technologies (computer graphics, hypertext, the Internet) have affected and will continue to affect curriculum changes. The new conceptual standards for accreditation will broaden the definition of the field and provide new possibilities for knowledge applications.

Daniels, W., et al. 1980. Strengthening the Library Profession: New Approaches are Needed in the Recruiting and Training of America's Future Librarians. In The Changing Role of Public Libraries: Background Papers from the White House Conference, compiled by W. N. Seymour Jr., 1-48. Metuchen, N.J.: Scarecrow Press.

After surveying new roles for public librarians, the authors discuss new initiatives that are needed to provide appropriate training for future librarians. They underscore the conservative nature of library education--its resistance to change over the past twenty years, the absence of sufficient electives to allow for specialization, and the lack of courses in communications. Suggestions for improvement include: improved recruitment, allowance for specialization, flexibility in core curriculum, recruitment of expert faculty, and increased clinical training (the authors propose a model for clinical training for public librarians).

Danton, J. P. 1946. Education for Librarianship: Criticisms, Dilemmas, and Proposals. New York: Columbia University, School of Library Service.

This paper examines the principal criticisms of library education and proposes remedies and solutions. The criticisms include: there is an overemphasis on methods and techniques rather than the theoretical and philosophical aspects of librarianship; faculty are weak in education and scholarship and hence have failed to get credibility on campuses; too much is crammed into curricula; there is too little specialization allowed students; schools offer too great breadth and too little depth to educate librarians adequately; there is insufficient integration with other parts of the university; schools are not meeting the demand for librarians with strong scholarship and subject specialization; and schools are not educating for leadership or administrative responsibility. There is also a lack of distinction between course content at the bachelor's and master's levels as well as a lack of differentiation of mechanical/technical and professional activities. To solve these, Danton suggests extended educational opportunities, from junior colleges for technicians to "middle service" schools for librarians and upper-level schools for administrative-specialist librarians. The upper end of schools would solve problems such as weak faculty and too little focus on theory. He also offers stronger accreditation standards as well as professional certification as solutions. Danton also urged another full-fledged study like Williamson's since the profession "appears to be at a crossroads."

de la Peña McCook, K. 1993. Project Century 21: A Background Report Responding to ALA 1991-92 Council Document #14. In Project Century 21: A Research and Action Program for Meeting the Information Needs of Society: Background Papers, 1-18. Chicago: American Library Association.

In the context of exploring issues on the agenda for ALA's Project Century 21, McCook discusses educational issues such as the kinds and levels of education and training that should be available in the future, and where and how it can best be provided. She asserts that an undergraduate foundation in information-based curricula needs to be studied and that curricular revision will be needed in both master's degree and continuing education programs to ensure that the field has the requisite management and technological competencies. She concludes by saying that schools should give students a broad-based orientation, collaborative attitudes, the ability to be involved in policy making, the knowledge to market the mission of the profession, and a professional ethos that initiates and accommodates change and risk taking.

Derr, R. L. 1983. The Integration of Theory and Practice in Professional Programs. Journal of Education for Librarianship 23: 193-206.

Derr argues for the need to integrate theory and practice into professional library and information science programs. He refers to a proposal of seminar-laboratory courses in which actual problems in practical settings are used to illuminate theory and cultivate skills. Thus, the presentation of theory and practical experience would be controlled and supervised by university faculty, and learning would be student-centered. Derr acknowledges that "theory" must be further defined, that theory must be applicable to practical problems, and that faculty members should give top priority to developing applied theory, rather than supervising students in practical experiences.

Detlefsen, E. G. 1986. Education for Health Sciences/Biomedical Librarianship: Past, Present, Future. Bulletin of the Medical Library Association 74: 148-53.

> Detlefsen expresses concern over the lack of specialized library education for health science and medical librarianship, stating that many library school programs are not adequately preparing graduates for the responsibilities they will assume. She believes that practitioners should work with the library schools to create effective programs for specialization. The concept of dual master's programs in the medical and library fields is discussed.

Dewey, M. 1883. Conference of Librarians. Library Journal 8: 285-95.

> During the annual ALA conference of 1883, Dewey presented a sketchy outline of a proposal for systematic instruction in library work. Essential to his scheme is an apprenticeship. The curriculum that he proposed included practical bibliography, books, reading, and literary methods--i.e., classification. ALA, as a result of Dewey's proposal, established a committee to further explore instruction in library work.

Dougherty, R. 1986. The Underlying Rationale. Library Journal 111: 118-20.

> Librarianship is in a state of transition. The key to this transitional state is the training and education of those now entering the field, as well as those already practicing. Concerns about the quality of educational preparation for academic librarianship have been articulated by practitioners, but solutions are not immediately obvious. Dougherty explores programs undertaken by the Council on Library Resources to improve the preparation of students interested in careers in research librarianship. Several examples of specialized programs are described, including the University of Michigan's post-MLS internship program.

Dumont, P. E. 1990. Library Education and Employer Expectations. In Library Education and Employer, edited by E. D. Cluff, 59-71. Binghamton, N.Y.: Haworth Press.

> Community, junior, and technical college librarians must have an understanding of the role and mission of their institutions, which differ from those of other institutions. Dumont goes into depth about Learning Resource Centers, which are unique to these institutions, and the role of the librarians within this framework. In addition to a MLS and an understanding of academic libraries, ideal candidates will have online database searching and computer skills, knowledge of library automation, and management and personnel skills.

Durrance, J. C. 1986. Library Schools and Continuing Professional Education: The De Facto Role and the Factors that Influence It. Library Trends 34: 679-96.

> Under Elizabeth Stone's influence, the Association for Library and Information Science Education (ALISE) adopted a statement that library schools need to have a clear role in continuing education for the library profession. Stone's ideal role for library schools would include creating and funding faculty positions specializing in continuing education, with a faculty member in charge of coordinating this program. Durrance also examines influences on continuing education, such as: librarianship's lack of a theoretical base; the influence of technology; resources available; and political-social pressures. A study shows the actual participation rate of library schools in continuing education and concludes that schools are not meeting ALISE's expectations.

Eshelman, W. R. 1983. The Erosion of Library Education. Library Journal 108: 1309-12.

> Eshelman asserts that library education is deteriorating and he provides possible explanations. Some issues addressed are the imbalanced membership of the ALA's Committee on Accreditation, which favors educators over practitioners; the transition to requiring Ph.D.s for library faculty; shifting curricula; and the overall lack of practitioner involvement in decision making. His solution to end the erosion of library education lies in a different composition of members of the ALA's Committee on Accreditation. He suggests that of the twelve members, there should be seven working librarians, including one recent library school graduate; three library school faculty; and two public members. Also, the chair of the Committee should be a working librarian or a public member. Eshelman feels that such a group would have less conflict of interest and would be more likely to make the decisions most desperately needed for the profession's future.

Estabrook, L. S. 1986. Librarianship and Information Resources Management: Some Questions and Contradictions. Journal of Education for Library and Information Science 27: 3-12.

> Estabrook argues that the convergence of librarianship and information resources management (IRM) is both complementary and contradictory, and it raises philosophical problems for library educators. The librarian's expertise in the organization and dissemination of information, knowledge of information retrieval, and database management is enhanced when linked to IRM functions such as system analysis, records management, and database design. Expansion of the market can also result in a larger role in information practice. IRM can also enhance the status of librarianship. Librarianship, on the other hand, can add a long professional history to IRM, along with the support of an enlarged and established professional association. The conflicting values of the occupations lie in the fact that librarianship's principal professional concern is access to information, whereas IRM's is cost efficiency in managing information resources. The perceived inappropriateness of the connected

occupations may threaten library schools, because of the differing priorities of information practice.

Eyre, J. 1980. Teaching About Computers and Library Automation in Schools of Librarianship and Information Science: A Comparative Survey. Program 14: 171-202.

This article reviews past surveys on library and information science curricula and presents a new study examining the involvement of computer courses. The study includes library school programs in the U.K., U.S., Canada, and Ireland, and evaluates the structure and objectives of current computer courses. The author notes that there were different levels of instruction and specializations for various geographic areas. The author concludes that increased knowledge in computer technology is vital to library education and the future of the profession. He states that computing is rapidly becoming a force for profound change, and teachers must accept the necessity of adjusting their syllabi and approaches and take into account new methods, philosophies, and new ways of teaching. However, traditional library work (collection development, assisting patrons in research) must also be maintained.

Fasick, A. M. 1986. Library and Information Science Students. Library Trends 34: 607-22. (Issue title: Current and Future Trends in Library and Information Science Education)

Fasick analyzes the characteristics of library school students as a factor in determining the status of the profession over the years. She focuses on the predominance of women in the field and the lack of administrative capabilities exhibited. Fasick believes changes could be made in the library profession, starting with the recruitment of viable students. Some suggestions mentioned for the future of library education are: prerequisites for the master's program, including courses in general information studies, basic statistics, and computer technology; a competitive professional salary; and subject knowledge. She states that the personality of applicants should be ignored, since administrative and assertiveness skills can be taught, and that library experience should not be a deciding factor for acceptance into a program. Individuals with broad backgrounds who can apply theory and concepts should be considered ideal applicants.

Forgione, G. A. 1991. The College of Information Science: A Mechanism to Consolidate Information Science Education. Education for Information 9: 285-304.

Forgione, a professor of information systems, believes that information is the key to the future global economy, and universities and colleges help meet this need by conducting research and education in information science. Currently, information science education is fragmented in a loose interdisciplinary approach. Forgione proposes the formation of a college of information science to encompass business, computer science, and other programs such as library science, communications, and engineering into a fully integrated, interdisciplinary educational program.

Frank, D. G. 1990. Education for Librarians in a Major Science-Engineering Library: Expectations and Reality. In Library Education and Employer, edited by E. D. Cluff, 59-71. Binghamton, N.Y.: Haworth Press.

> Frank discusses the personnel needs of the twenty-five major science-engineering libraries in the United States. For library school programs to better meet the needs of this group, he recommends more effective recruitment of top students, expansion of more graduate library schools to two-year programs, more study of approaches and methodology, inclusion of bibliometrics in the curriculum, and more emphasis on communication skills.

Gardner, R. K. 1987. Library and Information Science Education. In Education of Library and Information Professionals: Present and Future Prospects, 32-52. Littleton, Colo.: Libraries Unlimited.

> Gardner states that libraries no longer dominate the market on information provision and that library schools must adapt to the changing needs of society, new means of accessing information, and the emerging technologies if they are to have a future. A new model for library and information science education is needed to solve the problems (school size, isolation from the governing institution, programs offered, and curriculum) plaguing the library schools. Possible solutions include: encouragement of faculty to become more involved with university organizations and research; merging of two or three existing schools; integration of library schools with other disciplines (communications or computer science); creation of joint degree programs; creation of a new degree, drawing elements from different disciplines; introduction of undergraduate programs; provision of courses for different levels of library staff (clerks and assistants); and improvement of curriculum by adding human information processing, interpersonal communications, the economy of information, information models, and local, national, and international information systems.

Garrison, G. 1988. Education of the Information Professional: New Dimensions, New Directions. Part V: The Future. Journal of the American Society for Information Science 39: 362-66.

> Garrison provides an overview of the "information business," noting that a number of the practitioners are not from the library or information science field, but from disciplines such as management, communications, engineering, and computer science. He traces the growth of library and information science programs and describes the experimental efforts of some schools. Garrison believes that in addition to library and information science, other disciplines are expanding their curricula in response to the growth of the information field. He does not see the emergence of a single new discipline that encompasses the broad spectrum of information. Garrison believes that other disciplines, by virtue of their active professional associations, are taking charge of the information profession. For example, the Association for Computing Machinery

and the Data Processing Management Association have put forth model curricula at the both the B.S. and M.S. levels. The ALA seems to be unable to step beyond a traditional library focus. Therefore, the profession is beginning to lag behind these more future- oriented and aggressive disciplines.

Ghani, H., and A. Griffin. 1987. Library and Information Science Education: Exploring the Future. Journal of Information Science 13: 343-44.

These authors note a number of areas of concern in education for library and information science: the graduates, professional image, and student work experience. Three important components in LIS programs are the recruitment, selection, and educational process. In addition, the emerging markets in the public and industry/commerce sectors are new constituents to which schools must become more responsive. Continuing education will also be very important in the future, perhaps in the form of in-service training or traveling workshops.

Gibbons, F. 1983. From Librarianship to Library Science: The Professional Education of Librarians in the U.K., the U.S., and Australia. Journal of Education for Librarianship 33: 247-62.

The author examines the educational programs of the United Kingdom and Australia. A relevant educational basis for the librarian is established on an undergraduate level (1st degree in librarianship). Advanced studies are available in polytechnics and graduate degrees in universities. The practical nature of librarianship is emphasized, while the need for integration between professional education and in-service training is recognized.

Gleaves, E. S. 1982. Library Education Issues for the Eighties. Journal of Education for Librarianship 33: 260.

This article focuses on future trends in library education and reviews prior studies to support predictions about the future. Gleaves predicts that technology will have an important influence on curriculum; library and information science education (an integrated curriculum) will replace library science; program enrollment will stabilize; accreditation of new programs will cease; public university programs will dominate, due to the cost of private school programs; and there will be little consideration of two-year programs. Identified for greater emphasis in the future are: practice in the curriculum; the option of subject specialization; and continuing education programs.

Godert, W. 1987. Educating the Public Librarian, Educating the Special Librarians: Is There a Common Future? Education for Information 5: 187-97.

Godert explains the library education infrastructure in the Federal Republic of Germany as departmentalized. There is growing isolation among public libraries, special libraries, and academic and research libraries within the educational program. The author suggests joint education for these special areas, just as programs for documentalists and librarians have been coordinated. The author further recommends job-oriented differentiation and library-type (i.e., public, academic, etc.) training without abandoning the unity of librarianship.

Gomersall, A. 1981. Information Work in the Next Decade: Can Library Schools Provide What We Need? In Nationwide Provision and Use of Information, 365-68. ASLIB/IIS/LA Joint Conference, Sheffield, England, 15-19 September, 1980. London: Library Association.

Numerous forecasts for the 21st century have brought much criticism of library schools and their ability to bridge the gap between skills learned and attributes required for the special librarian. The author explores some of the problems and concludes that libraries should concentrate upon priorities. The euphoria surrounding online searching should not diminish the importance of traditional retrieval methods, a sound basis in the fundamentals, a critical questioning approach, and a sense of service. The changing role of the special library in the information-management structure should also be stressed.

Gorman, M. 1990. A Bogus and Dismal Science or The Eggplant that Ate Library Schools. American Libraries 21: 462-63.

Gorman notes that in the rush for library education to be identified with information sciences, library schools have hired top personnel with little or no library backgrounds and many schools have dropped the concept of educating librarians, as opposed to information scientists. If schools disclaim their relationship to librarianship, then the profession is in jeopardy. He believes that there is a body of knowledge called librarianship, that information science can be absorbed into that body, and that library schools can devise integrated and strong curricula that will educate librarians for future challenges. Gorman does not delineate how this is to be accomplished.

Gosling, W. 1991. Education for Dual-Track Staffing. Journal of Academic Librarianship 17: 212-13.

In reaction to a paper by Woodsworth and Lester, Gosling asserts that their ideal model is unrealistic and that their recommended educational program falls short in light of actual staffing requirements. The author believes it is not feasible to produce graduates who are ready for the work place. Extensive on-the-job training, combined with continuing education is necessary. He proposes dual-track staffing: one track for traditional librarians and the second for specialists in electronic information. Library education should, therefore, provide a range of programs, some emphasizing traditional library operations, some offering specialization, and some focusing on technological matters.

Griffiths, J. M. 1983. Competency Requirements for Library and Information Science Professionals. Rockville, Md.: King Research, Inc. (ERIC Document Reproduction Service no. ED 241 037)

> Griffiths states that there is a lack of communication between employers and educators and presents a schema for communication of information and an outline of the changing competencies demanded of the information professions. The remainder of the article speaks to how education and training of information professionals can adapt to the changing information environment. One of the purposes of the U.S. Department of Education's contract with King Research was to identify current and future competency requirements of librarians and other information professionals. King Research developed an elaborate framework in which are delineated competencies (knowledge, skills, attitudes); trends (increases in automated tools, volume and types of materials, networking and resource sharing, demand, awareness and sophistication of information users); work settings (libraries, information centers, clearinghouses, database producers, database distributors and services, special collections, etc.); and functions (user-oriented, technical, support).

Griffiths, J. M., and D. W. King. 1986. New Directions in Library and Information Science Education. White Plains, N.Y.: Knowledge Industry Publications.

> The objective project resulting in the King Report, as it is commonly called, was to list, describe, and validate competencies at several professional levels and within areas of specialization in the library and information science profession. It was intended to foster communication within the profession and identify required competencies to be taught in educational and training programs. Among the many conclusions, it was suggested that there will be increased importance of management functions, that there is a need for a proactive and broad view of the profession and interaction skills, and that there is a need for recruitment of more students with science backgrounds. The report also stresses the need for a partnership between educators and prospective employers to evaluate programs through competency-based assessment methods.

Grover, R. J. 1985. Library and Information Professional Education for the Learning Society: A Model Curriculum. Journal of Education for Library and Information Science 26: 33-45.

> This paper presents a model curriculum for library education in an effort to address concerns about education in professional literature--course content, the balance of theory versus practical experience, and the degree of specialization. The model calls for undergraduate or prerequisite knowledge, describes objectives for a core curriculum in a master's degree program, and outlines some possible electives.

Havard-Williams, P. 1987. Looking Towards the Future: An Overview. Education for Information 5: 91-104.

> This article outlines technological changes and the impact of information technology on library and information science education in Britain. The author summarizes briefly the development of information technology and its impact on society and libraries. He indicates that departments of library and information science in Britain are continually revising syllabi in response to changing demand and changing staff. He suggests six areas that should be in a core curriculum: (1) general theoretical fundamentals of information and documentation work; (2) methods and techniques of information processing; (3) problems in the development of retrieval and delivery systems; (4) knowledge of, as well as the management and planning of, national/international information systems; (5) the relationship between information and documentation and librarianship; and (6) additional problem areas, such as language, copyright, communication science, etc. He also speaks of the importance of a world perspective in librarianship. He concludes that the schools in the United Kingdom are part of a highly developed and integrated system, having relationships with numerous outside agencies such as the British Library, British Academy, etc., and is therefore well positioned to examine current theory and practice and to influence future developments.

Hayes, R. M. 1983. Managerial Accounting in Library and Information Science Education. Library Quarterly 53: 340-58.

> The author feels that managerial accounting is beneficial as a part of graduate education for librarians and information scientists and should be incorporated into library school curricula. The author uses the experience of adding managerial accounting to the curriculum at the UCLA Graduate School of Library and Information Science to support his assertions.

Hayes, R. M., ed. 1986. Universities, Information Technology, and Academic Libraries: The Next Twenty Years, 155-62. Academic Libraries Frontiers Conference, University of California, Los Angeles, Lake Arrowhead Conference Center, 13-17 December 1981. Norwood, N.J.: Ablex Publishing.

> This conference of academic librarians and educators identified educational objectives that need to be met in the future. Among the many suggestions coming out of the conference were the following: offering extended programs and joint degrees, continuing education, and mid-career educational programs; preparing students to handle technical issues by providing hands-on experience; providing an understanding of the concept of information consultant, and the effects of technology and its implications; encouraging students to do relevant course work in other disciplines; including more orientation to the content of materials and provision of services that are user oriented and holistic; selectively recruiting students; teaching management

techniques to serve the need for effective managers of academic libraries (with the required skills to include accounting, statistics, economics, personnel management, political finesse, and strategic planning); and meeting the need for continuing education, since the MLS degree, at least in terms of technical content, is good for five years at most.

Hayes, R. M. 1986. Accreditation. Library Trends 34: 537-60. (Issue title: Current and Future Trends in Library and Information Science Education)

Hayes presents an overview of the accreditation of library and information science programs, including several trends for the future of library education. Trends mentioned were: (1) the further integration of automation into the curriculum; (2) greater demands for admission to the programs; (3) greater length of programs; (4) greater specialization, particularly by library type; (5) broadening of application areas outside of the traditional library setting; (6) greater subject expertise; and (7) greater emphasis on management and research. Decreased activity is expected in undergraduate programs and information resource management.

__________. 1988. Professional Library Education. In Influencing Change in Research Librarianship: A Festschrift for Warren J. Haas, edited by M. M. Cummings, 59-69. Washington, D.C.: Council on Library Resources.

Hayes reflects on Jim Haas's (past President, Council on Library Resources) dedication to and philosophy of professional library education. Haas envisions library education programs that groom more individuals for management roles. He feels that education needs to provide: knowledge of the research library and its relation to institutional performance; understanding of management applications and techniques; staff management; financial principles, such as accounting and budgeting; flexibility and strategic planning; skills with mechanical tools; and the ability to apply research results. Haas acknowledges the need for improvements, particularly in partnerships between library schools and academic research libraries, analogous to those between schools of medicine and teaching hospitals. The curriculum should focus on the basic science, the theory, and academic research. The teaching faculty should focus on instruction in professional practice and applied research. Faculty should include full-time academic staff and part-time practicing professional staff.

__________. 1989. Education and Training of Librarians. In Rethinking the Library in the Information Age: "Issues in Library Research Proposals for the 1990s," 43-74. Issued by the U.S. Department of Education. Washington, D.C.: GPO.

Hayes reviews past studies on education for librarianship and information sciences and poses questions that should be addressed by all library and information science programs: what should contemporary curricula aim to do; how does changing technology affect core curricula; what is the value of field work, internships, residency, and experience; to what extent can specialization be incorporated; what is the relationship between theory and practice; should there be interdisciplinary course work; what is the role of research competence; and how long should a program be. He also discusses faculty quality, recruitment and admission, and other contexts for education.

Hayes, R. M., and F. W. Summers. 1983. Two-Year Library School Programs: Useful Extension or Waste of Time? American Libraries 14: 619-20.

Two experienced library school deans examine the option of two-year library school programs for strengthening library education. Hayes (UCLA Graduate School of Library and Information Science) writes in favor of the concept, emphasizing the potential for more specialization and practical experience. Summers (University of South Carolina, College of Library and Information Science) discusses the drawbacks, such as the cost involved compared to little or no guarantee of benefits.

Healy, James S. 1988. The Electronic Library School: An Alternative Approach. Technical Services Quarterly 6: 17-26.

This article describes the initiation of a new program at San Jose State University's library school. The author reviews the philosophical foundations of the program, which combines theoretical and practical applications, and describes the integration of technology into the new curriculum.

Heilprin, L. B. 1980. The Library Community at a Technological and Philosophical Crossroads: Necessary and Sufficient Conditions for Survival. Journal of the American Society for Information Science 31, 389-95. Reprinted in the same journal, 42 (1991): 566-73.

Heilprin's timeless article asserts that the community of libraries and library schools will not survive in the face of competition in the information sector without assuming two new functions: support of and participation in research on the fundamentals of the information process; and lifelong systematic re-education after the basic master's degree along the lines present in the medical profession. Only if these two functions are added will the library community, including education, survive as an effective and invulnerable segment of the information ecology. Adding one function but not the other will not stave off being replaced or bypassed in the information chain.

Heim, K. M. 1986. Dimensions of Faculty Public Service: A Policy Science Approach to Questions of Information Provision. Journal of Education for Library and Information Science 26: 154-64.

Heim discusses the role that library and information science faculty need to play in public service. Many practitioners feel that the recent emphasis on research in library education may be detracting from the practical knowledge base that future librarians will need to work in the profession. Heim suggests that faculty need to stress the relationship between research and its effect on policy making and public service in information provision (in practice and in the classroom). Professional associations should provide the base for practitioners and faculty to work together to meet the needs of the profession.

Heyser, T., and R. G. Heyser. 1989. The Role of Library Education in Meeting the Personnel Needs of Public and School Libraries. Journal of Library Administration 10: 3-20.

This article discusses the present and future roles of schools of library and information science in providing employers with graduates who have the needed entry-level competencies for public libraries and school media centers. Based on the lessons of the past, the authors recommend that educators work closely with library and information practitioners in the future. They suggest that required practitioner competencies must be clearly identified and constantly reevaluated, that a wider range of students should be recruited from the science and technology fields, that there be periodic re-education for professionals, and that new teaching methods should be explored.

Hipgrave, R. 1985. Developments in Information Technology and Their Significance for Education and Training in Library and Information Work. New Zealand Libraries 44: 229-31.

In this article, future information technologies such as artificial intelligence and natural language processing are examined with a view to how library educators can anticipate the new skills and knowledge that professional librarians will need to introduce these technologies to society.

Hoadley, I. B., S. Creth, and H. S. White. 1985. Reactions to "Defining the Academic Librarian." College & Research Libraries 46: 469-77.

This set of articles reacts to Edward Holley's "Defining the Academic Librarian" [College & Research Libraries 46 (1985): 462-68]. Although the reactors agree with some of Holley's paper, they were not unanimous, and all indicated what they felt to be critical in defining the academic librarian. Hoadley talks about the environment in which a library exists as defining the academic library and, ultimately, the academic librarian. Creth refers to her work with Powell and comments that the selection of students, an anticipatory curriculum, and the faculty's relationship to library organizations are important issues to address. White states that academic librarians need to become more involved in universitywide activities, and library school faculty need to become involved with the academic library.

Holley, E. 1985. Defining the Academic Librarian. College & Research Libraries 46: 462-68.

Holley discusses four types of knowledge that he feels academic librarians need to have besides technical skills: (1) background in the history and development of higher education, i.e., awareness of the political structure of a university; (2) an appreciation for the history of scholarship and learning, i.e., acknowledging the part of the librarian in the scheme of higher education, intellectual curiosity, and growth; (3) an understanding of how knowledge is obtained in various disciplines, i.e., being aware of new advances in technology or means of acquiring certain information; and (4) an ability to evaluate research findings, i.e., understand the researchers to relate to their ideas and needs.

__________. 1986. Does Library Education Have a Future? American Libraries 17: 702-6.

Holley acknowledges the criticisms library education has received over the years and addresses the issues through a review of an ALISE symposium on the future of library and information science education. He agrees with Buckland's position in "Education for Librarianship in the Next Century" that library education will follow what happens in librarianship and that changes in the curriculum will be made as needed in order to keep up with the profession's demands. The three aspects of librarianship mentioned as being susceptible to change are library values (attitudes, roles of libraries, selection, and cultural environment); library technology; and library science.

Howden, N. 1988. Advanced Preparation in Microcomputer Systems. Journal of Education for Library and Information Science 29: 15-27.

Microcomputer and other hardware and software are pervasive parts of library processes today. The changing needs of libraries, and resulting technologies, require professionals to have adaptable skills. To prepare individuals for the library profession, graduate library school programs need to adjust their curricula to include an understanding of the technology and its implications as well as offering hands-on operating experience. Suggestions for basic and advanced concepts to be covered in an ideal curriculum include: systems analysis, data management, operating systems, library-specific software, and information processing software.

Hyman, R. 1991. Schools in Crisis: Stemming the Tide. Wilson Library Bulletin 65: 46-49.

Hyman discusses the problems of defining the library profession and the isolation of library educators from their libraries and the university community. He believes that librarianship can be defined, and that this must be done at the very beginning of the educational process. At the start of the library school admissions process, the admissions counselor should place emphasis on bibliographic organization, which is central to librarianship, as well as the principles of librarianship. A test of cataloging and classification skills could also be given to potential students. To overcome isolation, the faculty in library schools should participate in university functions (commencement, universitywide committees), cooperate with colleagues in other departments, refer students to courses in other departments, and invite colleagues to teach courses relevant to librarianship.

Jordan, P. 1981. Educating Informers in the Eighties. In Nationwide Provision and Use of Information, 359-64. ASLIB/IIS/LA Joint Conference, Sheffield, England, 15-19 September, 1980. London: Library Association.

Jordan briefly scans the history of British library education, which developed both quantitatively and qualitatively over a short period of time. Criteria for quality curricula are established, including: a statement of objectives as a continual reference point for teaching; the integration of relationships among parts of a course with a model or theory of librarianship; and the use of a variety of teaching and assessment methods. The author underscores the importance of effective management and evaluation of course programs for the future of library education, and suggests an outline for core programs in information work.

Kaegbein, P., and D. Rusch. 1982. Library and Information Science in West Germany. Journal of Education for Librarianship 22: 154-72.

Library education in the Federal Republic of Germany is reviewed in light of its cultural milieu and structure of education. Librarianship is separated into two areas: librarians or information mediators and documentalists or information content analysts. There are differing fundamental views concerning the methods and goals of education and training programs for librarians. The author strongly recommends a methodically oriented professional education, augmented by a differentiated special studies program. This approach would mandate a balance between general knowledge and subject study.

Kaldor, I. L., and M. W. Jackson, Jr. 1975. Education in Academic Librarianship. In New Dimensions for Academic Library Service, edited by E. J. Josey, 183-228. Metuchen, N.J.: Scarecrow Press.

After tracing the history of education for academic library service, the authors assert that the mission of the library school is to provide the graduate with a basic, generalized, theoretical knowledge base within the one-year MLS. The viability of extending the program is questioned, but much stress is placed on controlling the quality of degree candidates. Based on Asheim's definition of levels of work within a hypothetical library, the authors propose as essential basic education and skills the following: the MLS degree, subject competency in an academic discipline, working knowledge of at least one foreign language, and the characteristics and professional attitude needed for effective communication.

The King Report. See Griffiths, J. M. 1983. Competency Requirements for Library and Information Science Professionals. Rockville, Md.: King Research, Inc. (ERIC Document Reproduction Service No. ED 241 037); Griffiths, J. M., and D. W. King. 1986. New Directions in Library and Information Science Education. White Plains, N.Y.: Knowledge Industry Publications.

Koenig, M. E. 1983. Education for Special Librarianship. Special Libraries 74: 182-96.

> Koenig argues that it is important for special libraries to take a proactive role in determining the criteria for library education, since special librarianship is fast becoming the dominant category for library employment. This article surveys special librarians in major research and information-intensive corporations and concludes that there are major discrepancies between core curriculum requirements and what practitioners believe to be important skills for employment. Skills for special libraries, such as management or administration, are not congruent with traditional library needs. Koenig disputes the conventional professional wisdom that all graduates should have a common set of skills. Among his recommendations are adding more flexibility in curriculum for electives; adding full-time practitioners (from the corporate sphere) to the part-time faculty; either extending the course of study or reducing core requirements; emphasizing courses in information science/technology (including business administration and IRM); preparing students for unpredictable technological changes; and allowing special libraries to play a role in accreditation.

__________. 1986. Education for Information Management: Competition or Cooperation? Library Trends 34: 715-28.

> Koenig reviews the growing interest of information managers in business and management education programs. These programs generally look for alliances in other, more established professions, such as law or medicine. Koenig states that unless graduate education programs for library and information sciences actively seek to cooperate and initiate joint programs with business and management programs, the future of the library and information science profession could be in jeopardy. His scenario for joint programs includes joint degrees and faculty appointments. He believes cooperation could start with smaller projects and functions, such as joint workshops and conferences at a local level, and gradually develop into fully active programs.

Lancaster, F. W. 1983. Future Librarianship: Preparing for an Unconventional Career. Wilson Library Bulletin 57: 747-53.

> Lancaster calls for library educators to lead the profession in the rapidly changing social and technological environment of the information age. His thesis that librarianship is a crumbling institution is based on the premise that librarianship is overdependent on its physical facility for definition and education. This

institutionalization of the profession is supported by an analogy with the medical profession. Based on a fundamentally new concept of librarianship--as accessors of resources through telecommunications (information specialists or consultants) -- Lancaster recommends that library schools integrate, not "cut and paste," information science into their curricula. Although no model curriculum is provided, he stresses the need to teach all aspects of the communication cycle.

Lane, N. D. 1985. Education for Information Professionals in Australia. Journal of Education for Library and Information Science 25: 326-32.

Lane discusses education in the context of Australia's higher education system. There are fifteen schools of library and information science across Australia; the curriculum criteria, as established by the Library Association of Australia, are geared more to information management than to traditional librarianship. In addition, the schools all have undergraduate, postgraduate, and master's library programs.

Lesokhina, A. S. 1985. Problems of Training Library Personnel in the USSR. Journal of Education for Library and Information Science 25: 200-206.

Lesokhina describes the library system and library training in the USSR, which is all state financed. The programs train librarians in needed specializations, incorporate scientific methodology, and utilize practitioner concerns in specialized training. She does note that there are some problems: 40 percent of librarians working in rural areas have no advanced education; programs of study do not separate general and specialized studies; and higher education institutions are subordinate to numerous ministries.

Li, T. C. 1985. The Future of American Library Education--Return to Basics? Paper presented at the International Conference on Library and Information Science Education, Taipei, Taiwan.

This article advocates a return to education geared to the knowledge of subject content, the teaching role of librarians, and information processing. Li believes that although courses in information science are useful, they are not essential to librarianship. He feels that four directions should be followed: (1) stressing subject content and student ability to process and provide information; (2) reaffirming the distinct functions of librarians, particularly their teaching role; (3) integrating information science courses into traditional library science courses; and (4) developing a separate, full-fledged information science program, with a focus on managerial aspects.

LIBRARI: New Rungs for Library Career Ladders. 1993. NYLA Bulletin, 8-11.

> This article outlines the topics and proposals being developed by LIBRARI, a work group on expanding library career paths through education, training, and certification in New York State. Proposals include recommendations for a Small Library Supervisor/Manager Certificate, a Library Associate degree, and a Library Assistant degree. The Small Library Supervisor/Manager Certificate initially would be designed for managers of small public libraries. The course content would include the development of people skills and knowledge, oral and written communication, library management practices, information services, and collection development. Eventually, the Certificate could be expanded to include large public, academic, and school libraries. The Library Associate degree would provide a vocational base of knowledge for entry to supervisory positions on library support staffs, as well as providing a first step toward the professional MLS. The Library Assistant Bachelor of Science degree would provide a base of knowledge for intermediate through advanced supervisory/technical positions on library support staffs or for managerial positions in small library units.

Lin, S. C. 1983. Education for Librarianship in China After the Cultural Revolution. Journal of Education for Librarianship 24: 17-29.

> The history of library education in China is discussed through the modern Chinese library movement. At the crux of the movement in 1981, a national library conference was sponsored by the Ministry of Culture and the Ministry of Education at which a proposal was drawn up for the future of the profession. The proposal suggested the addition of library schools throughout the north-west and south-west regions; the development of a complete system of library education, including schools at the secondary level or programs offered through vocational schools; strengthening of existing programs, including specialization; development of textbook and teaching materials; improvement of on-the-job training; and increase of support and encouragement of education for librarians.

Lynch, B. P. 1989. Education and Training of Librarians. In Rethinking the Library in the Information Age: "Issues in Library Research Proposals for the 1990s," 75-92. Issued by the U.S. Department of Education. Washington, D.C.: GPO.

> Lynch presents an overview of the development of library education through the mid-1980s. She discusses the expectations of library staff and their relationship to education, as well as the concept of research in the field of library and information science. In addition, there should be a focus on the educational requirements of school librarians, due to a lack of consensus on requirements for entry into the field. She also notes that the intellectual foundation of the field, although subject to divided opinions, is far more important than vocational skills. Unfortunately, the field seems to be preoccupied with issues of vocationalism.

McClure, C. R., and C. A. Hert. 1991. Specialization in Library/Information Science Education: Issues, Scenarios, and the Need for Action. Paper presented at the Conference on Specialization in Library/Information Science Education, Ann Arbor, Mich. (ERIC Document Reproduction Service no. ED 352 032)

> The authors call for LIS educators and other stakeholders to "embrace and champion cataclysmic change" or face extinction in the face of the evolving information professions. They argue that library education is one niche in the larger information profession and that education for library science ought to identify with the current and evolving information professions. Library education should be one of a range of multiple degrees and specializations that serve the needs of many different organizational contexts, such as governments, corporations, not-for-profit organizations, information resource vendors and suppliers, and libraries. Possible scenarios are identified that will make possible the new kinds of specializations needed in schools, including a reorganized program allied with communications, computer science, journalism, or management schools; an extended program; post-MLS certification; combination generalist/specialist programs; undergraduate programs; joint programs; or a clinical program. To achieve change, McClure and Hert suggest that strategic thinking is needed. They also state that some things held dear by the profession must be altered. Among the necessary changes are disbanding the Committee on Accreditation, developing one-year residency programs that become degree requirements, and requiring regular and ongoing certification of LIS educators. Values, philosophies, and assumptions must change, not just lists of competencies.

Malinconico, S. M. 1992. What Librarians Need to Know to Survive in an Age of Technology. Journal of Education for Library and Information Science 33: 226-40.

> Future projections of the role of the librarian within the electronic library have failed to consider the possibility that others might vie for control and management of information resources. With this in mind, Malinconico believes that library educators have done a fine job of projecting how to utilize future information technologies, but have failed to project how these developments will affect management and organizational structure and how librarians will deal with these new hybrids (such as the convergence of libraries and computer centers). This new electronic library environment should not be viewed as the disintegration of librarianship as we know it, but rather as an increase in the number of shareholders in the acquisition storage and dissemination of information. The author suggests several competencies that will be required in the future: understanding the infrastructure of the parent organization; preparing to market library services; developing communication skills; understanding the capabilities and limitations of new technologies; learning to work collegially; maintaining knowledge of traditional technical skills; developing critical judgment; and last, but foremost, to understand the fundamental activity of libraries is management.

Marcum, D. B. 1988. President, Council on Library Resources. In Influencing Change in Research Librarianship: A Festschrift for Warren J. Haas, edited by M. M. Cummings, 9-19. Washington, D.C.: Council on Library Resources.

Marcum reviews Jim Haas's major accomplishments during his tenure as president of the Council on Library Resources in relation to his efforts to plan for the future of librarianship. She describes several programs, focusing on areas in which the Council has been and will continue to be effective in improving education, such as postgraduate internship programs, continuing education programs, and management development. The problem of the isolation of library schools from the rest of the university community was also a Council concern, and Marcum outlines Haas's attempts to define and give visibility to the discipline of information studies, as well as identifying the people to support its development.

Martin, S. K. 1986. Library Education: An Administrator's View. Library Journal 111: 115-17.

Martin questions whether an MLS adequately prepares individuals for positions in the library profession. She compares library and information science education with preparation for other professions (medicine, law, education, and business), and notes that library and information science education is lacking in supervised practicums, certification, training, specialization, and length of study. She also points out that communication is lacking between practitioners and educators in the profession and that tension has arisen between the two groups because of changing programs and students, experience versus education, job requirements, and poor library administrators. Suggestions for improving library education include: accreditation of programs through a council independent of any association; development of realistic standards for entry-level professionals; partnership of educators and practitioners to ensure a curriculum that recognizes the realities of the field; and lengthening of library and information science programs to at least fifteen months.

Meadows, A. J. 1987. Future Trends in Information Science. In Future Trends in Information Science and Technology: Proceedings of the Silver Jubilee Conference of the City University's Department of Information Science, edited by P. A. Yates-Mercer, 105-14. London: Taylor Graham.

Meadows believes that the future of the teaching of information will be marked with rapid changes, frequent syllabus updates, and the blurring of boundaries between disciplines. In the future, courses in computers, systems, and management will be core-level courses. Due to rapid changes in the information technologies, boundaries with other disciplines will change and more varied applications of the technologies will have to be covered.

Metcalf, D. K., J. D. Russell, and A. D. Osborn. 1943. The Program of Instruction in Library Schools. Urbana: University of Illinois Press.

> According to the authors, education for librarianship has advanced significantly in fifty years, but the instructional program in the field has not. Changes are needed to improve (1) deficiencies in instructors' training and educational qualifications, (2) the elementary nature of the library school program, and (3) the depth and meaning of the field through a philosophy of librarianship. The authors studied the curriculum, methods of instruction, class size, the tutorial system, and the working load of students. They analyze all facets of library school curricula, instructional methods, class size, tutorial systems, and second-year programs (with one-year bachelor's degrees being the norm). Since this "self study" of the University of Illinois' Library School places the school in the context of common educational practices of the day, it does not clearly point out future directions, but rather provides a succinct summary of existing practices. It is included in this bibliography as a touchstone.

Miller, M. L. 1989. ALA/NCATE: An Education for School Librarianship. Catholic Library World 60: 76-80.

> This paper reports on a discussion about linking the accreditation and standards of ALA with those of the National Council for Accreditation of Teacher Education (NCATE) for school library media programs. The evolution of education for this specialization is reviewed, along with the implications of this potential venture.

Munn, R. 1936. Conditions and Trends in Education for Librarianship. New York: Carnegie Corporation.

> Munn's report to the Carnegie Corporation on programs for library science came exactly ten years after the Corporation had established its endowment program for library schools. Its president notes in the foreword that "marked progress has been made in virtually all phases of education for librarianship during the last decade." He goes on to state that conditions are still in a transitional stage, and that "while some schools appear to be firmly established, others are still in process of securing local recognition and support...." Munn's review for the Corporation begins by pointing out that much of the conflict about educational needs stems from the differences between the requirements of scholarly versus popular libraries. His litany of criticisms of library schools includes: schools are not producing leaders; schools place insufficient emphasis on underlying principles, favoring instead apprenticeship and routines; there is an inadequate supply of competent instructors; schools are unaware of the needs of the profession; students are not carefully selected; schools are not fully integrated with their institutions; and is no clear distinction between professional and graduate school methods. While Munn does not prescribe an agenda for the future, he does comment on the Board of Education for Librarianship and recommends which of its studies are important for the Carnegie Corporation to support. Among those recommended as

important are further study of teacher-training agencies, investigation of training for positions in small libraries, and a study of courses on the subprofessional level.

Munthe, W. 1939. *American Librarianship from a European Angle*. Chicago: American Library Association.

> The author traces the history of library education from Dewey (Columbia, 1887) through the late 1930s. He notes that while the curriculum for library education has grown from Dewey's training of routine processes (cataloging, classification, and library handwriting), there is a need for a preprofessional training program grounded in technique in advance of entrance into library school.

Ning, Z., and L. Lan. 1990. Forty Years of Development of Library and Information Science Education in China. *Journal of Education for Library and Information Science* 31: 162-70.

> This article summarizes the history of library science and information science education in China over the last forty years. A foundation has been developed, but it is not without challenges due to inadequate funding, teaching materials, and equipment, as well as the lack of instructors. The authors recommend the establishment of a multifaceted, long-term plan for education; continuing education or on-the-job retraining for current employees; coordination of efforts to improve the quality of education nationally; leadership in technology research; elimination of dependence on importing new technologies; and maintenance of international exchanges between universities, which assist in improving library education standards in China.

Osborn, A. D. 1971. The Design of the Curriculum for the Third Era of Education for Librarianship. In *Education for Librarianship: The Design of the Curriculum of Library Schools*, edited by H. Goldhor, 163-92. Urbana: University of Illinois, Graduate School of Library Science.

> Osborn first reviews existing curricula and then calls for new ways of thinking in library schools in the light of two significant trends--what he calls "administrative thinking" and technological change. He recommends that schools alter their basic courses to meet needs in the last quarter of the 20th century. Acquisition studies should replace book selection, administration courses should focus on case methods and planning, cataloging courses should be altered to encompass a broader view reflecting the organization of materials for access, computer studies should not be separate courses but rather infused into all courses, working knowledge of foreign languages should be required, reference courses should place more emphasis on information-seeking behavior and less on the sources and the literature, and, finally, curriculum redesign should be continuous.

Paris, M. 1988. Library School Closings: Four Case Studies. Metuchen, N.J.: Scarecrow Press.

> Paris examines four library schools that were closed by their respective universities. Her study focuses on common predisposing factors that were found in all schools and that led to their closings. Most factors relate to the library educator's inability to communicate effectively with the other sectors of the university. She concludes with factors necessary for library schools to survive, such as strong, imaginative, and forward-looking leadership; sound teaching; a timely and relevant research agenda; and a strong mission. She also discusses the impact these closings have on library education in general.

Paris, M., and H. S. White. 1986. Mixed Signals and Painful Choices: The Education of Special Librarians. Special Libraries 77: 207-12.

> As part of a study of academic, public, and special librarian's opinions and attitudes about library education, 108 librarians in special libraries and information centers completed a survey. The instrument was designed to elicit their opinions regarding issues such as existing library school curricula, continuing education, and on-the-job training. Little consensus emerged for a uniform curriculum for special librarians. On-the-job training was seen as a luxury. Special librarians seemed more likely than academic or public librarians to support continuing education.

Pearson, R. C., and T. D. Webb. 1988. The New Librarians: How Prepared are They? Library Journal 113: 132-34.

> Pearson and Webb conducted a study of the education and experience of library students prior to entering a MLS program. They found that the prior level of preparation is insufficient to meet today's professional requirements. They suggest that library schools should provide specialized and lengthened programs, improve recruitment efforts, and initiate preprofessional programs.

Pierce, S. J. 1991. Dead Germans and the Theory of Librarianship. American Libraries 26: 641-43.

> Pierce presents a new perspective on the ongoing theme of theory versus practice in library education. Theory is not dry abstraction, nor is it rules, precepts, or policies, which are often considered components of the nonpractitioner's curriculum. Most disciplines are rooted in a body of intellectual literature, i.e., classic works of fundamental knowledge. Surveying master's and doctoral- level programs, Pierce found reference and cataloging to be the most frequent requirements. Reading classics was not evident anywhere, with the exception of foundation courses, which had some classics dealing with trends and issues. He urges educators to unearth the common intellectual history of librarianship and teach this rich body of theory to its students.

Planning Committee. 1991. *The Decade of the Librarian: 1990-2000*. Chicago: American Library Association.

> One planning committee of the American Library Association provided strategic objectives for enhancing society's perception of the librarian. One perspective called for bringing together library practitioners and library educators in order to strengthen curricula, joining ALISE for additional perspectives, and emphasizing the research base of the profession.

Powell, R. R., and S. D. Creth. 1986. Knowledge Bases and Library Education. *College & Research Libraries* 47: 16-27.

> Using a stratified sample of librarians with nine or less years of experience, the authors asked about the competencies that were most important for their job performance. This group reported that, within research libraries, the most desirable competencies (in descending order of importance) were knowledge of bibliographic tools, oral communication, writing skills, search strategies, subject field, general reference sources, planning, online search, the reference interview, selection of materials, cataloging, personnel management, and subject cataloging. Near the bottom of the list was research methods.

Rayward, W. B. 1985. Academic Librarianship: The Role of Library Schools. In *Issues in Academic Librarianship: Views and Case Studies for the 1980's and 1990's*, edited by P. Spyers-Duran & T. W. Mann, Jr., 100-114. Westport, Conn.: Greenwood.

> According to Rayward, the education of academic and research library staff is complicated by several factors: the uncertainties of the future cannot be projected--therefore, planning for future education must be based on systematic knowledge of the present; there are contradictory professional expectations of educational programs by academic libraries; organizational barriers inhibit movement of exceptional personnel; faculty quality is impoverished; and there is a lack of investment in schools. He proposes several ways to strengthen library schools professionally and academically. First, the curriculum requires qualitative change. Maintaining a thesis requirement provides a problem-oriented approach to search for principles and draws students into relationships with knowledge. Second, regular faculty should take broad, research-oriented views of their subject areas and maintain currency with the latest developments in their areas, without having to learn the latest operational details. Third, extending the program by at least one year and recruiting brighter students will strengthen the schools. Fourth, both intrastructural and interinstitutional relationships should be stimulated and developed. Finally, research should be the focus of a curriculum oriented toward theory and principles.

__________. 1986. Research and Education for Library and Information Science: Waples in Retrospect. Library Quarterly 56: 348-59.

> Rayward uses a 1931 paper (Douglas Waples's "The Graduate Library School at Chicago") to examine how graduate library school programs have changed. Rayward asserts that the principles established in 1931 are still applicable. He reaffirms Waples's ideas, stating that schools need to have a firm base in research and be committed to investigating important problems of information generation, storage, access, dissemination, and use. A school also needs to attract a body of intellectually first-rate faculty and doctoral students, regardless of the modest size of the group. The school must also be anchored intellectually in a flexible, interdisciplinary environment.

Reece, E. J. 1924. Some Possible Developments in Library Education. Chicago: American Library Association.

> Reece takes the view that for effective change to occur in library schools, reform efforts need to aim at changes that will be needed for the profession fifty years into the future. He projects the need for the library worker to have knowledge of statistics, teaching methods, personnel administration, bibliographic cataloging, and academic subjects. He states that the old composite curriculum will not last and that librarians must be prepared to understand the nucleus of the field. He envisions three levels of education: training classes in the library for clericals; professional four-year education focusing on methods; and graduate schools in universities with students having prior undergraduate courses in the field that focus on knowledge of methods. Reece suggests that there should be a certifying agency for library workers that could "relieve schools of the accrediting function now settled upon them."

__________. 1936. The Curriculum in Library Schools. New York: Columbia University Press.

> The development of library education is reviewed, from early informal teachings to current formal library school curricula for professional librarians. Discussion includes proposed departures from the basic and established curricula toward two-year programs and ones that allow specialization. Since the work was aimed at individuals thinking about instructional positions in library schools, it is more descriptive of the status quo than predictive of the future.

__________. 1949. The Task and Training of Librarians. New York: Kings Crown.

> Reece reports on a 1947 field investigation that was undertaken with a view to revising the curriculum at Columbia University's Faculty of Library Service, which had remained unchanged since 1936. His field study asked practitioners what library school graduates were lacking intellectually in knowledge and skills. He also asked what advances in the field were anticipated in the next twenty-five years, and whether

new knowledge and skills would be needed. Among the changes in the profession predicted by his respondents were: a strong teaching role (even diagnostic and prescriptive) for librarians and less emphasis on getting and keeping a collection; aggressive service that anticipates needs and assists and contributes to research; public education and outreach through programming and furnishing raw data to an informed public; greater exploitation and use of nonprint materials; improved management of libraries; and constituent analysis. Reece found that graduates do not possess adequate skills and knowledge, and that their educational preparation in library schools will be inadequate for the future. He also sees a wider market for library school graduates than traditional libraries. As a result of this study, he concluded that curricular reform should be directed at educating librarians who understand their constituents and clients, grasp the elements of administrative theory, and know one or more subject disciplines. Librarians must have personal attributes such independence, initiative, imagination, objectivity, and a liking for people. In conclusion, Reece proposes the three-level structure for education first described in his 1924 pamphlet, arguing that education is presently too narrow as an undergraduate program, and that the clerical component of library education should be shifted to secondary schools and junior colleges.

Regan, M. 1987. Librarians & Libraries in the 1990s: Gloom and Doom, or Fame and a Different Game. Special Libraries 78: 295-98.

Regan notes that there has been a shift from librarian to information manager and predicts that this shift will have the greatest impact on special librarians. Changes in library education are essential, and practitioners should influence the inclusion of courses on information concepts and technology. In addition, the possibility of joint education with graduate business schools should be explored.

Rethinking the Library in the Information Age. 1990. Library Management Quarterly 13: 8-10.

This article summarizes points made at a 1990 conference by three speakers on the future of libraries. A. Mathews expresses a need to restructure the library science curriculum to meet the expectations of the profession; practitioners must communicate better with library educators to accomplish this end. D. Marcum identifies five critical issues that need to be dealt with in library education: (1) clarification of the confusion caused by the addition of information science to library science; (2) improved research productivity; (3) more stress on research, which will increase credibility and funding; (4) reorganization of and more emphasis on continuing education for professionals; and (5) the change in the professional image from that of a technique-oriented career. T. Bearman presents a list of required competencies to meet the needs of the user population by the year 2000, including: knowledge competency--knowledge of technologies, cultural context, and subject-related information; skills competency--communication, management, technology, critical thinking, and performance; and attitude competency--sensitivity, flexibility, curiosity, self-confidence, and humor.

Richardson, J. 1982. Theory into Practice: W. W. Chatus and the Development of American Library Education. Journal of Education for Librarianship 33: 209-23.

> The author explores the historical development of the library education curriculum. He argues that librarians are not defined merely by what they do (unlike proponents of function analysis, competency-based teaching, and behavioral approaches). Richardson advocates a holistic educational approach that includes science, technology, and the humanities in the educational preparation of librarians.

Robbins, J. 1990. Master's Degree from a Program Accredited by the American Library Association Required. Journal of Education for Library and Information Science 30: 206-17.

> Robbins examines librarianship in the context of the criteria established for professions. Library education is discussed as an integral part of professional status. Conclusions suggest that library education needs to include programs for library assistants. All levels of staff in a library should be educated beyond on-the-job training, as are assistants in the health and legal professions.

Robinson, W. C. 1985. Time Present and Time Past. Journal of Education for Library and Information Science 26: 79.

> Education for librarianship is examined in the context of the concerns and challenges of library educators and practitioners over the years. The article claims that the problems plaguing the profession in the past continue in the present. The dilemma between a practical versus a theoretical curriculum is still being debated. Leadership, specialization, and certification issues are discussed. Robinson concludes by suggesting that unrealistic expectations could be the root of the problem.

Runyon, R. S., and L. K. Dickson. 1990. Administrative Expectations in the Recruitment of Academic Librarians. Journal of Library Administration 11: 97-105.

> There is a greater need for interaction between library educators and practitioners regarding the educational requirements of the academic library work environment. The library professional must be exposed to theoretical, practical, and experimental material. Library school faculty should have the opportunity for internships in an academic library setting. Library school students should be exposed to case studies, role playing, internships, conferences, and workshops. Courses in business communication and organizational behavior would also be beneficial.

Rush, J. E. 1985. The Challenges of Educating Library and Information Science Professionals, 1985 and Beyond. Technical Services Quarterly 3: 97-112.

> The article notes that librarianship is at a critical point; it will either emerge as a force in society or continue to decline. Librarianship and information science are both

concerned with communication and therefore belong together. The administration and faculty of these programs must build curricula that are relevant for today's and tomorrow's information needs. A review of LIS programs finds that few have expanded to include management courses, but rather present a confused and incoherent framework of academic requirements. Radical changes in the length and focus of library education should be incorporated to keep librarianship a viable profession. These include library education as a step-by-step process from undergraduate programs (emphasizing quantitative skills), master's programs (two-year, emphasizing advanced course work and research), and doctoral programs (focusing almost entirely on research).

Ryans, C. C. 1980. Cataloging Administrators' Views on Cataloging Education. *Library Resources & Technical Services* 24: 343-51.

Ryans reviews the theory-versus-practice debate in library education as it relates to cataloging. The author surveyed heads of cataloging at sixty universities to determine the importance of cataloging courses and the most useful approach to teaching cataloging. Of the forty-two respondents, most felt that theory is worthwhile but that it should be mixed with a practical approach. The respondents also felt that the majority of MLS students were not adequately prepared. The author urges more cooperation between schools and practicing catalogers in determining curriculum content. Employers indicate a preference to do on-the-job training, so broad theoretical education in library schools is recommended in combination with internships. The author concludes that while theory should be a major component of the graduate curriculum, practical or on-the-job training ought to be initiated.

Schlessinger, B. S., and J. H. Schlessinger. 1983. The Use of Microcomputers in Education for Librarianship and Information Science. In *The Application of Mini- and Micro-Computers in Information Documentation and Libraries*, edited by C. Keren and L. Perlmuter, 177-82. Amsterdam: Elsevier Science.

The introduction of information science courses into the library science curriculum is examined. Particular emphasis is placed on practical experience with microcomputers as opposed to past descriptive references. Increased use of this technology provides room for predictions of greater use in areas of simulation of system programming, library applications, statistical analysis of research results, and management information systems.

Schlessinger, B. S., J. H. Schlessinger, and R. S. Karp. 1991. Information Science/Library Science Education Programs in the 1990s: A Not-So-Modest Proposal. *Library Administration and Management* 5: 16-19.

This article suggests a core curriculum for the 1990s that covers competencies in four areas: orientation in resources, organization, management, and information science.

> Options for specialization and practical experience are also recommended. Specialization can be achieved through a two-year master's program, undergraduate baccalaureate programs with a subject major and an information science/library science major or minor, a postgraduate degree, or certification. The need for work experience could be met through full-time internships.

Scott, A. D. 1983. Mini- and Micro-Computers in Education and Training for Library and Information Work. In The Application of Mini- and Micro-Computers in Information Documentation and Libraries, edited by C. Keren and L. Perlmuter, 183-88). Amsterdam: Elsevier Science.

> The impact of mini- and microcomputers in education for the library and information profession in the U.K. is discussed. The need for computer education is examined, since computer use penetrates almost every aspect of library work. Also, the use of computers as tools for education and training (i.e., teaching packages) is explored. Educational requirements and problems are mentioned, along with proposed solutions. Related research and development work in the U.K. is described.

Sellberg, R. 1988. The Teaching of Cataloging in the U.S. Library Schools. Library Resources & Technical Services 32: 30-42.

> Sellberg focuses on the need for library schools to expand their curricula to include more education in cataloging. She feels that there is a shortage of competent catalogers due to the underemphasis of this specialization in library school programs. She includes a historical background of the issue, current status, and future prospects. Other suggestions include re-examination of curricula and revision of accreditation standards.

Settel, B., and D. A. Marchand. 1988. Syracuse University School of Information Studies: A Tradition of Innovation. Journal of the American Society for Information Science 39: 331-33.

> This article describes the education of an information professional at the School of Information Studies, Syracuse University, using an interdisciplinary approach to teaching and research, and drawing from the fields of communication, computer science, information science, and traditional library science. Unique features of the curriculum and degree programs are discussed, as well as future directions for the school.

Shera, J. H. 1972. The Foundations of Education for Librarianship. New York: Becker and Hayes.

> In this volume Shera explores library education in the context of the total communication system in society. After an insightful analysis of the origins of

libraries and the history of library education, he explores the curricular structure of graduate professional programs, the place of research, and the general administration of library schools. He criticizes education for two significant failures--failure to attract the brightest and the best, and failure to strengthen the curriculum by using the resources of the universities of which they are a part. Shera calls for serious reform of education for the future. He also calls for library schools to transform themselves so that they offer graduate programs that are challenging to students and will permit them to grow, exercise their imaginations, and "push the profession into a position of real social utility." He enjoins the library profession to remold itself, to take bold and imaginative steps in applying computer technology, to oppose rigid standardization, to implement new methods of instruction, and to consult with specialists in other disciplines. In reforming education for the profession he indicates two areas of knowledge that will be central to the profession: an understanding of society and the communication systems that operate within it, and knowledge of the intellectual content of graphic records and their bibliographic organization for effective access.

Shores, L. 1972. Library Education. Littleton, Colo.: Libraries Unlimited.

This compilation of talks, articles, and papers by Shores spans fifty years of his career. Although not all of the papers are strictly about library education, his views of the future do appear throughout the work. He calls for preprofessional education, undergraduate library education, and a master's degree for more advanced positions. He advocated and participated in ALA's Commission on a National Plan for Library Education, which failed to make any significant impact on the field. He projects that curricula in the future ought to focus on library use, library technique, and library art at all levels; that work-study or cooperative programs would help to bridge the gap between educators and practitioners; that faculty will emphasize teaching more, and research productivity less; and that interviews and references will be used to screen applicants until telepathy and other phenomena of parapsychology are better developed. He also predicts that by 1984 men will outnumber women in the profession. Shores calls for certification of professionals, recognizing that library education will continue to be criticized. He also favored the idea of ALA's Board of Education controlling admissions by linking them to the number of jobs available and assigning admission quotas to schools annually. Shores admits to crusading for unpopular professional causes.

Smith, N. M., and M. P. Marchant. 1982. The Research Library Director's View of Library Education. College & Research Libraries 43: 437-44.

The Association of Research Libraries' (ARL) Task Force on Library Education conducted a survey of ARL library directors to ascertain their opinion of skills required at present and five years into the future for entry-level librarians. The results indicate that instruction is needed in areas pertaining to analytic skills and human relations; they suggest increasing instruction in online retrieval, systems analysis, and library automation skills in the next five years. The article concludes with some open-ended questions pertaining to the need for a double master's degree program and extending the MLS program.

Smith, N. M., and H. L. Warner. 1990. Educating Future Librarians: The Library School Perspective. In Library Education and Employer, edited by E. D. Cluff, 37-44. Binghamton, N.Y.: Haworth Press.

The authors discuss the ongoing tension between library schools and practitioners. Practitioners want library schools to emphasize procedures, whereas library schools continue to emphasize process. The article focuses on the School of Library and Information Science at Brigham Young University and how it deals with these tensions. In concluding, the authors suggest that more scholarships be offered to attract better students; that employers offer higher salaries; and that an improved attitude be developed across the board that stresses the need for librarians.

Stephenson, M. S. 1986. One Role of Library Education in Preparing Library School Graduates for Computer-Based Management and Decision Making. In Microcomputers for Library Decision Making: Issues, Trends, and Applications, edited by P. Hernon and C. R. McClure, 183-97. Norwood, N.J.: Ablex.

Stephenson discusses the impact of specific curricular concerns and strategies on the educational preparation of library students for effective decision making, based on computer-based technologies. She emphasizes the need to provide students with a solid foundation in library management, both in theory and in practice, while allowing them to understand and develop their decision-making capabilities through the use of computer technologies.

Stieg, M. F. 1992. Change and Challenge in Library and Information Science Education. Chicago and London: American Library Association.

Stieg's book analyzes trends in library and information science education and identifies issues and questions at a time when there is much debate about the field; it is under scrutiny and subject to the down-sizing of higher education in general. The questions she poses need answers if the field is to adapt and move successfully into the next century. While she provides a lucid overview of the aims of professional education, the professional context, curriculum, faculty, etc., it was not her intent to be prescriptive about the future. She does, however, outline in the last chapter a proposed framework for action in which she identifies areas on which the profession should focus its efforts. These include: distinguishing professional work that requires professional education; developing specialized preparation directly related to the careers of graduates; planning for the specialization of schools; separating teaching from research; institutionalizing the discipline so that individual faculty do not define the knowledge base, and the credibility of schools does not depend on the credibility of their deans or directors.

Stuart-Stubbs, B., ed. 1985. Changing Technology and Education for Librarianship and Information Science. Greenwich, Conn.: JAI Press.

This book presents the proceedings of an invitational conference held in 1983 on the impact of changing technology on the recording and dissemination of knowledge, on research libraries as part of that process, and on education for library and information studies. Although a variety of speakers mention a lot of changes that are needed in education, no cohesive image of future needs and directions emerged. Speakers did agree that there should be a review of assumptions about the profession and that there should be fundamental changes in programs, particularly their content. B. Frankowiak contributed a paper that calls for a shift in focus away from libraries and toward information in society (and placing libraries in that context) with courses such as information systems analysis, information systems planning, computer technology, telecommunications technology, analysis and application of computer software packages, the economics of information, and online database searching. He also suggests that schools should look to other programs in the institution for contributions to their programs and should establish an ethos of life-long learning in their graduates.

Swigger, B. K. 1985. Integrating Automation in a MLS Curriculum. Journal of Education for Library and Information Science 25: 320-23.

The MLS curriculum of the School of Library Science at Texas Women's University is described as one that completely integrates automation. Several core courses that incorporate theoretical perspectives and practical technological applications are outlined. Computers have become a routine tool for many purposes in the library profession and hence are integrated into the curriculum. The author also suggests electives in other professional school programs to enhance specialization.

Tague, J. 1987. The Role of Research in Information and Library Education. In Education of Library and Information Professionals: Present and Future Prospects, edited by R. K. Gardner, 121-134. Littleton, Colo.: Libraries Unlimited.

Tague examines the role of research in the curricula of graduate information and library programs, as well as faculty involvement in independent research. As the nature of the library profession changes, activities that were once considered the basis of the profession are now handled by clerks or technicians. In the future librarians will become more involved in management activities, such as supervision, planning and budgeting, or information user education. These require evaluative and analytical skills, which are taught through research methods courses. Therefore, Tague states that research will continue to be a vital part of the educational experience. She also believes that faculty should provide leadership in encouraging research through involvement in scholarly pursuits. They should provide the theoretical base in research and allow the practicing professionals to be involved in applied research.

Taylor, R. S. 1979. Reminiscing About the Future: Professional Education and the Information Environment. *Library Journal* 104: 1871-75.

Taylor provides an educational framework that is based on a model of the library being transformed by a new information infrastructure. Librarianship, he argues, carries with it a history of semantic baggage and must separate itself from the institution of the library. No longer is the field defined by its expertise in designing, operating, managing, and providing access to the recorded knowledge held by libraries. Rather it is responsible for designing, operating, and managing systems and services for the creation, organization, movement, and use of messages for defined groups of people. He reasons that education for library and information science therefore should cover six fundamental subject areas: organization of information, information environment, information media, analysis of systems and technologies, research methods, and management.

Tees, M. H. 1986. Graduate Education for Special Librarians: What Special Librarians are Looking for in Graduates. *Special Libraries* 77: 190-97.

A Special Libraries Association survey of 452 special librarians was conducted to determine the knowledge base that new graduates should have. Communication skills and the ability to conduct reference interviews were high on the list. Management skills, client service, and the ability to use different technologies were also highly rated. Tees concludes that the recruitment of top candidates is important and that there should be more collaboration between practitioners and educators.

__________. 1991. Harmonization of Education and Training for Information Professionals. *IFLA Journal* 17: 232-34.

This article summarizes discussions at IFLA's education committee conferences during the years in which harmonization of information specialists was proposed. The conferences concluded that common educational elements exist for archivists, librarians, information scientists, and documentalists and that certain curriculum areas could be harmonized. These areas were management and administration, records management, information technology, research methods, user studies, marketing, and evaluation of information systems and services. Tees believes that education for information professionals is in a state of flux and that changes will take place in the future as a result of a widespread rethinking of missions and standards for education in North America.

Trumpeter, M. C., and P. Gherman. 1980. A Post-Master's Degree Internship Program. Library Journal 105: 1366-69.

> Using the Library of Congress and the National Library of Medicine internship programs as models, the authors propose a new postgraduate library internship program in which each major research library would create at least one permanent entry-level intern position. The intern would rotate through a variety of areas and activities within the library to gain an overall understanding of its workings. The experience could be specialized to a certain degree and the position could be described in whatever way is most advantageous to the host institution. Two pilot projects are briefly discussed, as well as recruitment for these programs.

Tsuda, Y. 1989. Future Trends in Library and Information Science Education in Japan. In Library and Information Science Education: An International Symposium, 237-44. Paper presented at the International Conference on Library and Information Science Education, 1985. Metuchen, N.J.: Scarecrow Press.

> Tsuda reviews library and information science education in Japan and makes several predictions for the future. He states that there will be an increase in the number of information-related courses offered in colleges and universities, but there will be few courses in library science; that the introduction of new graduate courses is unlikely; that the excess production of professional librarians will continue with little chance of improvement in their quality; and that graduates of library and information science schools will continue to seek employment in business and industry, as well as in libraries. The author predicts that demand for qualified information science professionals will increase in the future as the pressures for information-oriented education become greater.

Turner, J. 1991. Training for Audiovisual Archivists and Librarians. IFLA Journal 17: 248-55.

> Turner attributes the problems of providing quality education for custodians of audiovisual documents in libraries and archives to a lack of international standardization. To illustrate possible curricula, Turner uses examples from Canadian schools that are considered leaders in the management of non-book documentation. The author asserts the need for more research into description standards and information retrieval, combined with preservation issues. Continuing education, internships, and workshops are recommended methods of education for the practitioner.

Vann, S. K. 1971. The Williamson Reports: A Study. Metuchen, N.J.: Scarecrow Press.

> Vann's work provides a concise summary of the history and development of Williamson's reports to the Carnegie Corporation and describes how he developed

them without consulting or considering the work of associations on some of the issues in the reports. Vann explores the early development of schools and the factors that led to the Williamson investigations.

__________. 1981. Conant and Williamson: A Review Article. Library Quarterly 51: 429-36.

This article summarizes the content of the 1968 Conant report with critical observations on Conant's recommendations. It compares the 1980 Conant Report to the 1926 Williamson Report. Vann describes Conant's seven principal reforms as contradictory, proactive, defensive, and self-serving. Recommendations in the Williamson Report are characterized as thorough, analytical, and based on sound collected data. The primary value of the Conant Report, according to this author, is that it underscores the need for a 1980s study of the impact of Williamson's recommendations and for the redirection of education for library and information science.

Veaner, A. B. 1984. Librarians: The Next Generation. Library Journal 109: 623.

Traditional librarianship is being transformed by new technologies. The focus for graduate library education has changed from learning routine tasks (such as cataloging, which has shifted to the support staff) to primarily intellectual activities (identifying needs, analyzing problems, and administering programs). The image of librarianship has been enhanced by these changes. The first step toward survival of the profession is more selective recruitment. Also, the accreditation process is the instrument to insure more innovation and better quality programs. The public, too, must be made aware of the new role of the library as a technology information center.

__________. 1985. 1985 to 1995: The Next Decade of Academic Librarianship, Part II. College & Research Libraries 46: 295-307.

Veaner examines the types of knowledge, skills, abilities, and attitudes that academic librarians will need in the future, and provides suggestions for graduate library school programs. The requirements for academic librarianship include: problem-solving and managerial skills; oral and written communication skills; mechanical skills and tools (computer knowledge); commitment to librarianship; and financial management skills. Specific suggestions for library education include more selective recruitment, in order to produce fewer, but higher-quality, graduates; and an agenda for ACRL to improve image and salaries for academic librarians. The educational focus should be on management expertise, leaving technical and production work to support staff. Programs should help students to develop analytical, financial, interpersonal, promotional, supervisory, leadership, and labor-relation skills, and practicums and internships should be mandatory.

Vondran, R. F. 1990. Rethinking Library Education in the Information Age. Journal of Library Administration 11: 27-36.

> Library education is examined in light of the recent information explosion. Changes in the way information is acquired, organized, and accessed has altered some of the ideology and practices of librarianship. The recruitment of able students is discussed, as is the need for curriculum changes, such as a curriculum that encourages confidence, adaptability, technical comfort, proactive professional behaviors, and processing skills.

Ward, P. L. 1985. Developing Programmes in the Most Isolated City in the World. Library Association Record 87: 191-92.

> Ward provides a brief description of the library profession in Australia and the provision of library education to students in remote areas. Future developments include distance-learning packages, such as a program of group tutorials by satellite.

Wedgewood, R. 1991. Some Thoughts on the Perils of Library Education: Real and Perceived. Wilson Library Bulletin 65: 46-49.

> Wedgewood believes that other professions derive their authority from their knowledge base, whereas the librarian's authority is derived from knowledge of the characteristics of knowledge bases. The problems of library education lie in the small size of the unit within the university and the lack of funding to pursue training and research. For the continued growth of the profession, joint efforts of practitioners and educators are essential, as is an emphasis on core knowledge, research, internships, and specialization.

Wheeler, J. L. 1946. Progress and Problems in Education for Librarianship. New York: Carnegie Corporation.

> Wheeler's report is a response to the Carnegie Corporation's request for "a memorandum as to matters affecting present-day training for librarianship, with special reference to library schools, their faculties, graduates, students, curricula, relation to higher education and to the profession of librarian" (p. 5). Curricular criticisms in 1946 echo those of earlier decades: there is too much focus on details and methods; curricula are not responsive to needs in the field; teaching is elementary and lacks principles and philosophy; schools are slow to incorporate new developments; and schools try to cover too much and too many levels in their short programs. Wheeler debunks some of these criticisms and, for the future, suggests an exploration of specialization of schools, introduction of preprofessional courses, and improvement of specialized knowledge through preprofessional practice, work-study, and field programs. He approves of the introduction of Ph.D. degrees but cautions against the precipitous introduction of doctoral programs. Like Munn, Wheeler outlines for the

Board of Education for Librarianship a role that it should undertake to stimulate change, particularly in the training of people who cannot attend library school.

White, H. S. 1983. Recent Developments in Library Education. In The Bowker Annual, compiled and edited by J. O. O'Hare, 257-60. New York: R.R. Bowker.

Changing areas of emphasis in library education include the evaluation and application of computer technology; library management principles and concerns; networking and resource sharing; and intellectual freedom. Library schools have been responding to the increase in older students, part-time students, and continuing education for practitioners by offering more evening and weekend courses. In the future, White predicts the need for updated competencies for library educators, active interchange between library educators and practitioners, and improved research productivity.

__________. 1986. The Accredited MLS and the Promised Land. Library Journal 111: 94-95.

White argues that if librarianship is a profession, then there is a distinct difference between library education and library training. Although practitioners want entry-level professionals to be pretrained with specifics, this is not possible. A dialogue between educators and practitioners is needed and should begin, not with demands, but rather with a determination of what is to be accomplished and how.

__________. 1986. The Future of Library and Information Science Education. Journal of Education for Library and Information Science 26: 174-82.

This article focuses on projections of the future course of library and information science and notes that projections are iffy at best. The future of library education is affected by three sectors: the professional community, the academic community, and the general public. White outlines six steps that could be taken to improve education in the future, although he questions all six due to the uncertainty of the future. His suggestions are: (1) to lengthen the degree requirement beyond one year; (2) to add front-end prerequisite requirements to the present degree; (3) to implement an undergraduate degree program as a prerequisite to graduate study; (4) to implement an undergraduate degree program as a career option, leading to specific jobs for which the MLS is not required or is not appropriate; (5) to specialize the present one-year program to prepare graduates to work in one or more specific settings; and (6) to abandon all controls, including accreditation, and move to a free-market environment. Finally, he presents a three-step scenario that includes: providing strong standards of educational accreditation; maintaining the master's degree as the basic professional educational preparation; and keeping the graduate degree as the minimum qualification for entry into the profession.

White, H. S., ed. 1986. Education for Professional Libraries. White Plains, N.Y.: Knowledge Industry Publications.

> In an attempt to define optimal or minimal preparation for the library profession, White sought leaders in a variety of library fields to identify issues that require solutions. From the twelve essays, White identifies the commonalities and divergences that can assist in shaping professional requirements. Among the areas that remain to be addressed are: the need for changing the professional educational experience; the need to develop specializations; parameters for preprofessional experience (i.e., internships, on-the-job training); and general education versus subject specialization.

White, H. S., and S. L. Mort. 1990. The Accredited Library Education Program as Preparation for Professional Library Work. Library Quarterly 60: 187-215.

> White and Mort conducted a survey of library school graduates to determine whether they felt accredited library school programs are adequate preparation for professional library work. They found that most students chose a library program based on geographic proximity rather than quality of curriculum. Graduates stated that they were inadequately prepared for the specializations that many employers seek. The authors concluded that library programs prepare all students for any kind of library work, in any kind of setting, with little emphasis on specialization. Suggestions for change include a re-examination and strengthening of the core curriculum and review of accreditation standards.

White, H. S., and M. Paris. 1985. Employer Preferences and the Library Education Curriculum. Library Quarterly 55: 1-33.

> This article summarizes a much-cited study on employer preferences for the library education curriculum. Public, academic, and special library directors were asked to complete a survey about the necessary curriculum for a graduate library school and options for alternatives to education and training outside the traditional one-year degree setting. The study found little agreement among practitioners with respect to curriculum. Most employers made their choices according to the needs of their particular library. The authors conclude that the field and educators need to have open and protracted discussions about education for the profession in order to effect the needed changes.

Williams, R. V., and M. J. K. Zachert. 1986. Specialization in Library Education: A Review of the Trends and Issues. Journal of Education for Library and Information Science 26: 215-32.

> The authors provide a historical review of problems and trends in education for special librarianship and argue that there is a need for subject specialization in librarianship. Library school programs continue to be reluctant to alter their curricula to meet

specialized needs despite demands from practitioners. This reluctance has fed the emergence of new groups of information professionals who create educational programs incorporating many ideas that special librarians have long been trying to include in their education for librarianship. Most curricula include core courses dealing with methods of concern to all libraries, plus elective courses relating to only a few specializations in the total information industry. Automation and information science have been incorporated into most programs; however, many problems still remain unresolved, such as the appropriate length of the master's degree program, the allowable proportion of specialization, and the nature and role of apprenticeship in the program.

Williamson, C. C. 1971. The Williamson Reports of 1921 and 1923, including Training for Library Work (1921) and Training for Library Service (1923). Metuchen, N.J.: Scarecrow Press.

Both of Williamson's reports to the Carnegie Corporation are reproduced in this volume. Of the two, the 1923 one is the official "published" report. It contains eight recommendations pertaining to professional education. In his words, the two most important recommendations are (1) that professional training [his word] be preceded by a four- year college degree and one year of graduate study, or at least four years of college education; and (2) that professional library schools be organized as a department of a university. He notes that there is little unanimity among schools and suggests that there is a need for standardization as to the scope and content of courses, but that the standards should be dynamic rather than static. Regarding entrance requirements, he recommends that admission be based on prior educational performance and ability to maintain a high level of scholarship. Williamson further suggests that steps be taken to improve the quality of instruction in library schools, that field work be considered one of the methods of instruction, that there is need to recruit a better grade of student, and that financial incentives are needed to compete with other graduate programs for the best students. He attributes the lack of prestige of library schools to causes such as the lack of productive scholarship on the part of faculty, the small size of the schools, and the predominance of women in the field. He states, however, that library schools developed along the lines of his report will overcome these handicaps. Williamson sees the need for two years of professional study, with the second year being an opportunity for specialization. Library schools are also enjoined to provide continuing education for practitioners in the field. At the time of writing, the American Library Association was discussing a voluntary certification system, and Williamson encourages both this step and an authoritative body for formulating and enforcing standards in library schools.

Woodsworth, A., and J. Lester. 1991. Educational Imperatives of the Future Research Library: A Symposium. Journal of Academic Librarianship 17: 204-15.

> From the framework of a model of the future research library, Woodsworth and Lester develop a set of the knowledge, skills, and competencies that will be required for the library and information professional in the 21st century. Based on an examination of administration and staffing requirements, they conclude that library schools need to continue to redesign curricula to provide students with evaluative, synthesizing, and analytical skills, both in specific areas and from the perspective of the total information environment and its interrelating sectors. They identify information-seeking and usage behavior of individuals, political decision-making processes, long-range strategic planning, interpersonal and small group dynamics, organizational psychology and behavior, marketing, economics of information, community analysis, evaluation methodologies, statistical analysis, and research methodologies as the competencies that will be needed in the future. They recommend strategies to implement long-term changes, with a focus on basic principles, theories, and foundations. They also suggest that chief policy makers--both educators and practitioners--should act together to achieve these objectives.

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